This catalog is the last of its kind, and is to be kept in permanent catalog file.
Return to -
M.E. Johnson,
Rivett Lathe and Grinder Corp.,
Brighton District, Boston, Mass.

RIVETT LATHES

RIVETT LATHES AND TOOLS

FOR ALL MODERN SHOP PRACTICE.

ENGINEERS, TOOL MAKERS, SCIENTISTS, ELECTRICIANS,
MACHINISTS AND MODEL MAKERS.

MANUFACTURED BY

FANEUIL WATCH TOOL COMPANY,

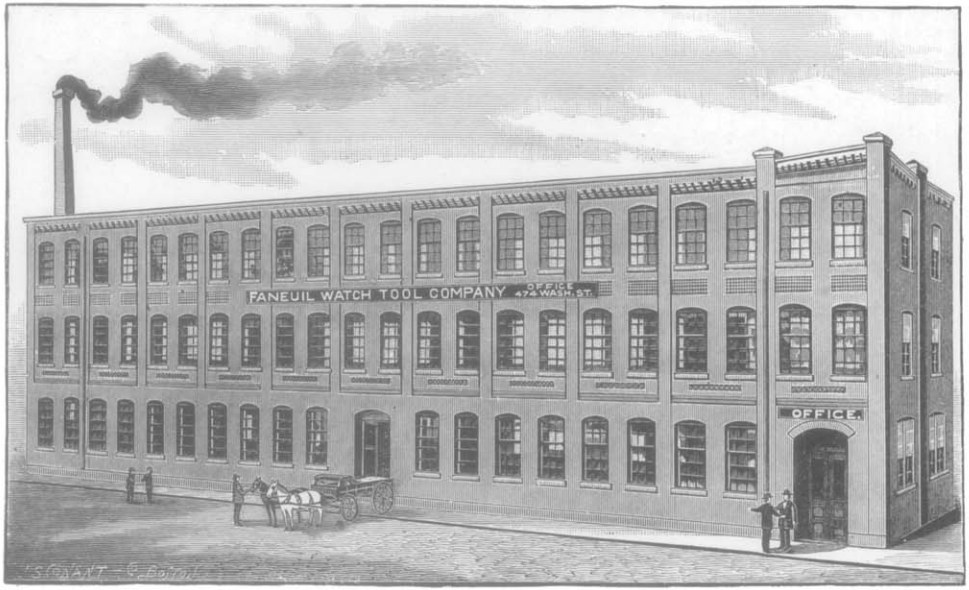
BRIGHTON DISTRICT,

....BOSTON, MASS.....

1898

JOHN D. CROSBY, TREASURER.

EDWARD RIVETT, PRESIDENT AND MANAGER.



Our Factory is situated in the City of Boston, Brighton District, Ward 25, at Faneuil Station (100 feet from the depot), on the Boston & Albany R. R., six miles from the business center. It can also be reached by the Oak Square Electric Cars.

INTRODUCTORY.

IN submitting the following pages illustrative of the Rivett Lathes to the mechanical world, we desire to express our deep appreciation of the reception always accorded our productions, and, as we have faithfully endeavored in the past to deserve the word "Best" as invariably applied to our tools, we shall as earnestly try to hold that record in the future.

The three sizes of lathes and attachments shown in our catalogue are all made in the same manner, and with the same skill and care, for our tools must win entirely and only on their merits; and though it is pleasant for us to know that we are awarded the Gold Medals and First Prizes at our great International Exhibitions, yet we do not parade these to influence trade, preferring rather to let the judgment of those who have and use our tools pronounce the verdict by which we are to stand or fall.

In 1884, our Mr. Edward Rivett, himself a skilled mechanical engineer, recognized the peculiar necessity of a small, fine, accurate lathe, which to the scientist and advanced mechanic of any profession would be capable of doing the thousand and one odd pieces of work, which for the want of special machinery, not warranted by the single operation then contemplated, have always been laboriously and inaccurately performed with hand tools.

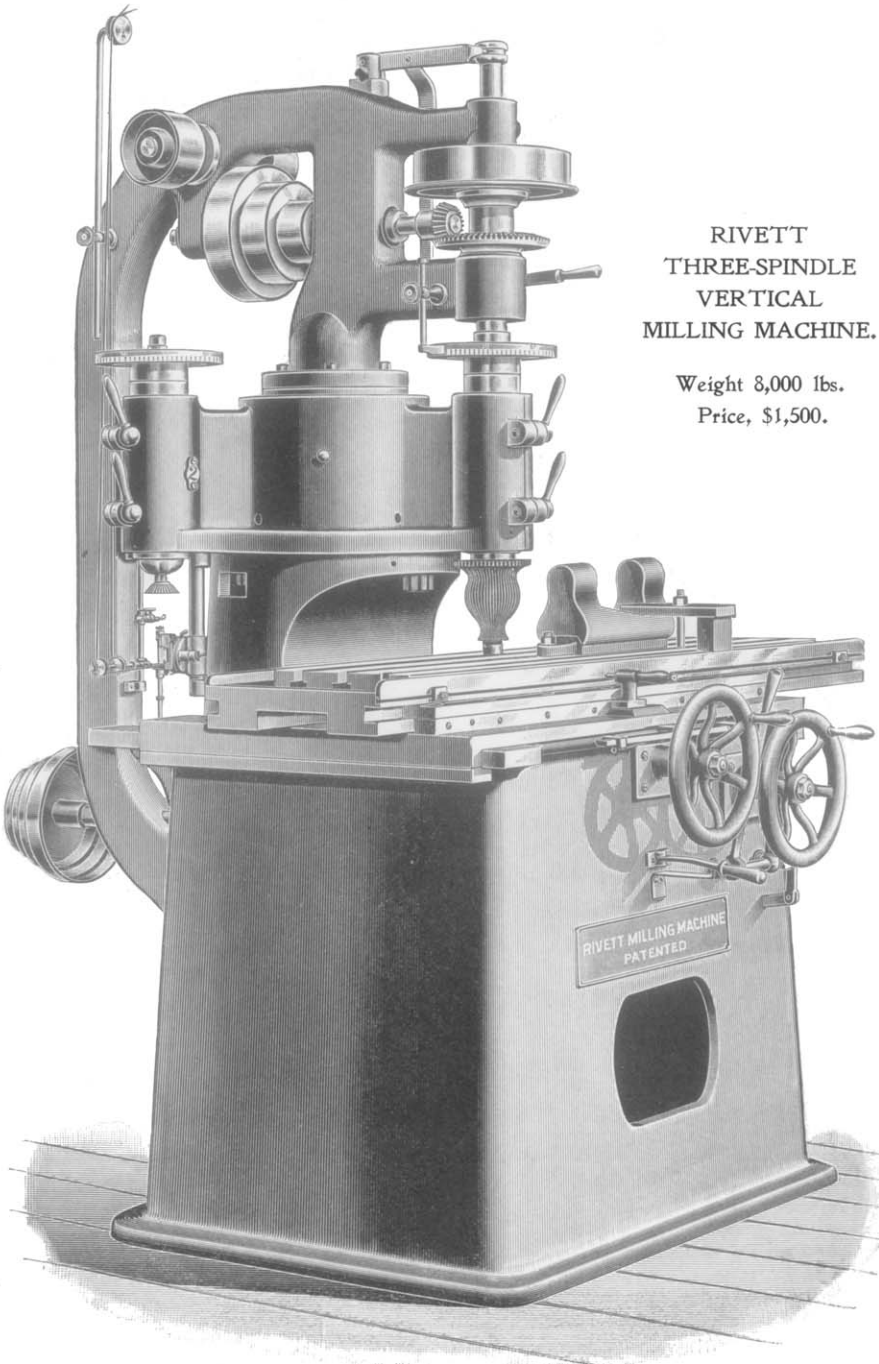
With this necessity in view our No. 3 Bench Lathe was designed and built, meeting with such success that in 1890 the No. 4 Bench Lathe was brought out. This tool found such universal approval that the idea of combining the bench lathe with all the advantages of an engine lathe was conceived and followed out with the utmost judgment and care, with the result that the Rivett 8-in. Precision Lathe, as shown on pages 16 to 23, stands today unrivalled as a machine tool, in which absolute accuracy of work is combined with a variety of operations possible to no other in the world.

The approbation of skilled mechanics was promptly given to our latest production, and already we have inquiries as to the feasibility of a 12-in. engine lathe built on the same general plan, the purchaser of our first 8-in. Precision Lathe not only asking the question but promptly sending us a carte blanche order to build him one of the 12-in. size.

We produce but one class of goods, with no variation as to quality, and have no second grade, and if our prices seem high in comparison with the productions of cheap labor and contract work, let it be remembered that all parts of our tools are made with great care.

We do not build cheap lathes, and our tools are not meant for unskilled hands, and as we have said in our catalogue of Staking Tools, we would prefer that our lathes should be overlooked by those not capable of handling them, for men of this class, well meaning as they may be, neither appreciate nor understand the value of machines like these, and in ruining them, only serve to injure our reputation and make enemies for us instead of friends.

The high grade skilled mechanic of any profession will find in these tools the full value of his investment and faithful servants to last him a lifetime.



RIVETT
THREE-SPINDLE
VERTICAL
MILLING MACHINE.

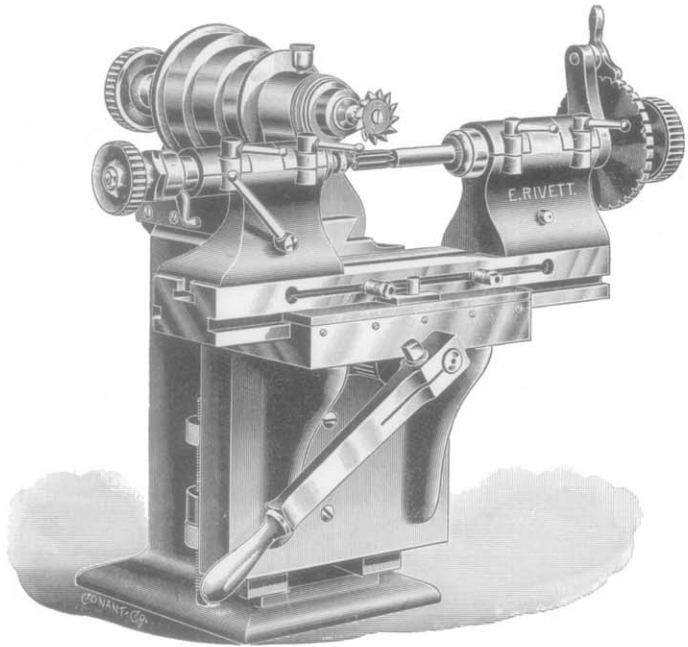
Weight 8,000 lbs.
Price, $1,500.

The Rivett Three-Spindle Vertical Milling Machine.

ON the opposite page we show one of our tools especially designed and made by us. This is a Three-Spindle Vertical Milling Machine, and, as can be seen, roughing and finishing cutters can be used successively without disturbing the work, and the cutters can be ground on their own arbors at the back of the machine, so that the grit from the emery does not interfere with the work, nor the grinding operation with the adjustment of the cutter. The machine is equally good for large or small work, and those at the World's Fair who saw our specimens of milling pronounced them to be the finest they ever saw.

The weight of the machine is four tons, and its rigidity such that it takes a cut so smooth that the final polishing of the work amounts to very little comparatively, and this is the reason why we can finish our No. 4 lathe so cheaply; we explain this matter as some people think that it is the outside finish of this lathe that makes it cost so much, but this is not the case, and everyone who has seen our method of finishing these lathes acknowledges that we can finish them almost as cheaply as by painting.

This Milling Machine is made only to order.



RIVETT BENCH MILLING MACHINE.

Price, $250.00.

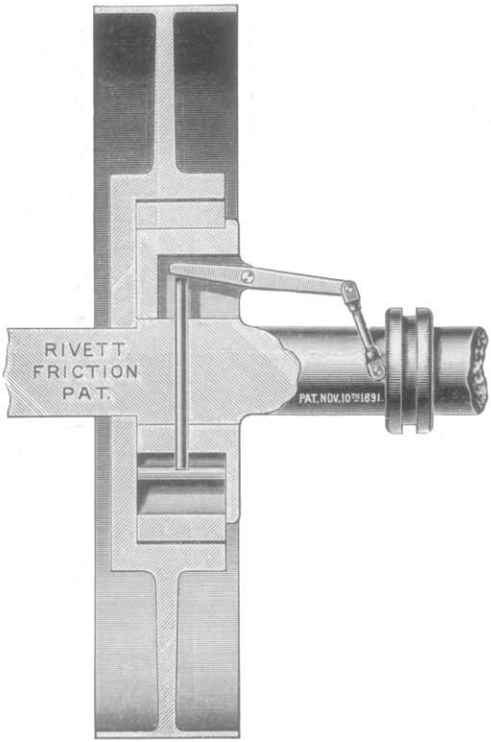
Rivett Bench Milling Machine.

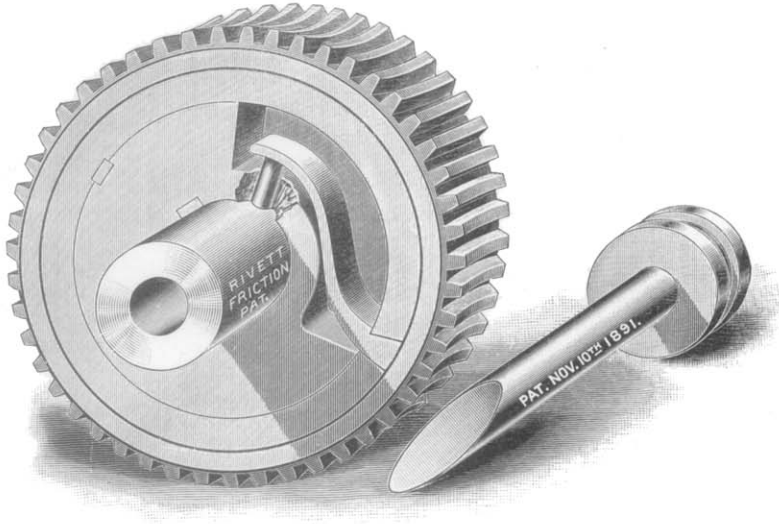
THE cut on the opposite page shows our Bench Milling Machine. All milling machines have a certain similarity, but though this machine is small, it is very rigid, as the stock is disposed so as to give strength where it is especially needed, and it will do work more rapidly and smoother than a great many milling machines four times its size.

For cutters, saws, and all straight milling it is one of the nicest machines on the market.

The work table is adjustable from two points, by the lever shown in the cut, and by a hand-wheel under the bench, which is graduated in 1,000ths of an inch. It also has a rigid stop.

Distance between centers	9 inches.
Swing	6¾ inches.
Weight	177 pounds.
Price	$250.00.


RIVETT
FRICTION
PAT.
PAT. NOV. 10TH 1891.


RIVETT
FRICTION
PAT.
PAT. NOV. 10TH 1891.

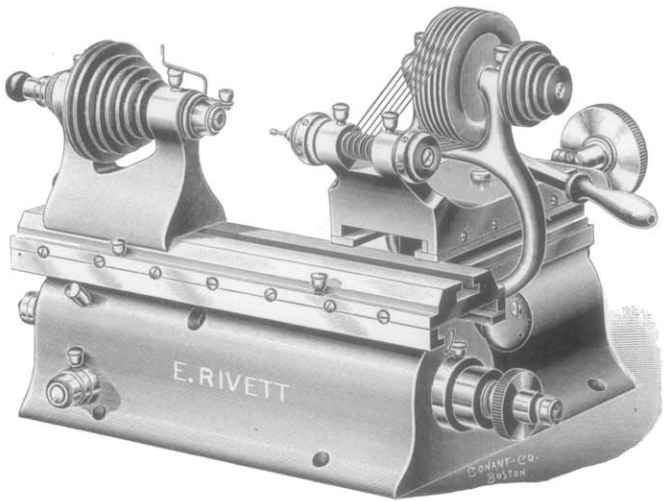
The Rivett Friction Clutch.

(Patented)

IN presenting the "Rivett" Clutch we offer no apology for adding another to the already long list of clutches now on the market, believing that there is always room for a *good* article in all lines of business. This clutch was designed by a practical mechanic and has been thoroughly tested, and proved its efficiency for *both light and heavy* work. For lathes, counters, countershafts, it has no equal on the market today. It is the only one adapted to carriage feed of engine lathes, for which purpose it is now in operation in some of the largest machine shops in the country. If you are in want of a good reliable clutch we would like to correspond with you, especially if other clutches have been tried and proved unsatisfactory. This friction clutch will be of great advantage to electrical workers, because it will start a machine or dynamo either gradually or quickly and can be stopped very quickly.

SIMPLE IN CONSTRUCTION,
EASY OF OPERATION,
POSITIVE IN ITS ACTION.

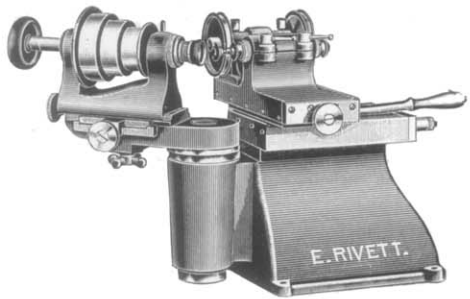
Adapted for Countershafts, Planers, Shapers, Lathe Feed, requires much less power to put on the feed, Pulleys and Cut-off Couplings of all kinds. One to One Thousand Horse Power. Shop right for sale.



RIVETT GRINDER FOR INTERNAL GRINDING.

Capacity, $\frac{10}{1000}$ to ¼ in., ½-in. stroke.

Price, $400.00.



RIVETT GRINDER.

Patent allowed.

Especially adapted for Grinding Cups and Cones of Ball Bearings.

Price, $450.00 to $600.00.

Rivett Grinders.

THERE is progress everywhere, but one of the greatest strides that has been made during the past few years in the art of grinding is here introduced.

Mr. Rivett, our mechanical expert, has been for several years at work on what some of the finest mechanics have thought to be an impossibility, viz:—the production of a linear speed for inside grinding as great as is already produced for outside grinding. This we have at last accomplished, and are now able to attain any speed from 10,000 to 100,000 revolutions per minute; but in devising a bearing to stand this great speed lay one of the difficulties to be overcome.

Everybody is aware of course that it is the speed at which a wheel is run that gives to it its ability to cut, and that the quicker it can be run, the better and more quickly it does its work. We can now grind a hole $\frac{1}{1000}$ inch in diameter, as true as we can a larger hole. For small holes we use a steel plug charged with diamond powder instead of emery.

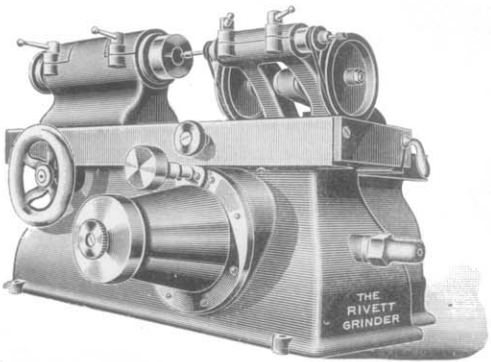
The grinder is now ready for the market, and for any grinding that is required, both rapid and accurate, and for all work such as guages, bicycle bearings, rollers for sewing machines, and in fact anything which has to be ground accurately, quickly and at a minimum cost, this machine is just the thing.

In addition to the matter of speed, this machine has several other features interesting to the lovers of ingenious special machinery.

The Automatic Feed, controlled by a patent device, is regular, and the reciprocating motion perfect, it is adjusted so that the length of the stroke will not vary $\frac{1}{1000}$ inch from one stroke to another. The carriage is arranged so that the slide can be disengaged and the head pushed back, for testing the work without removing it from the machine; this can be done and the carriage re-engaged in a moment.

The capacity of the machine for grinding is from $\frac{1}{1000}$ inch diameter to 2 inches diameter.

Length of feed can be adjusted by thousandths of an inch from 0 to $1\frac{3}{4}$ inches.

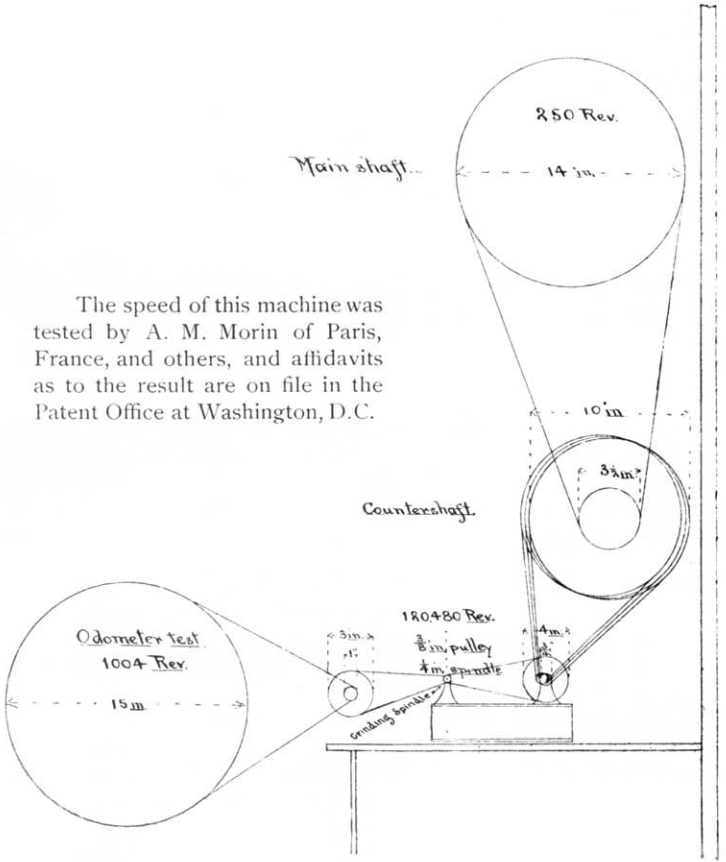


RIVETT GRINDER FOR INTERNAL GRINDING.

Patent allowed.

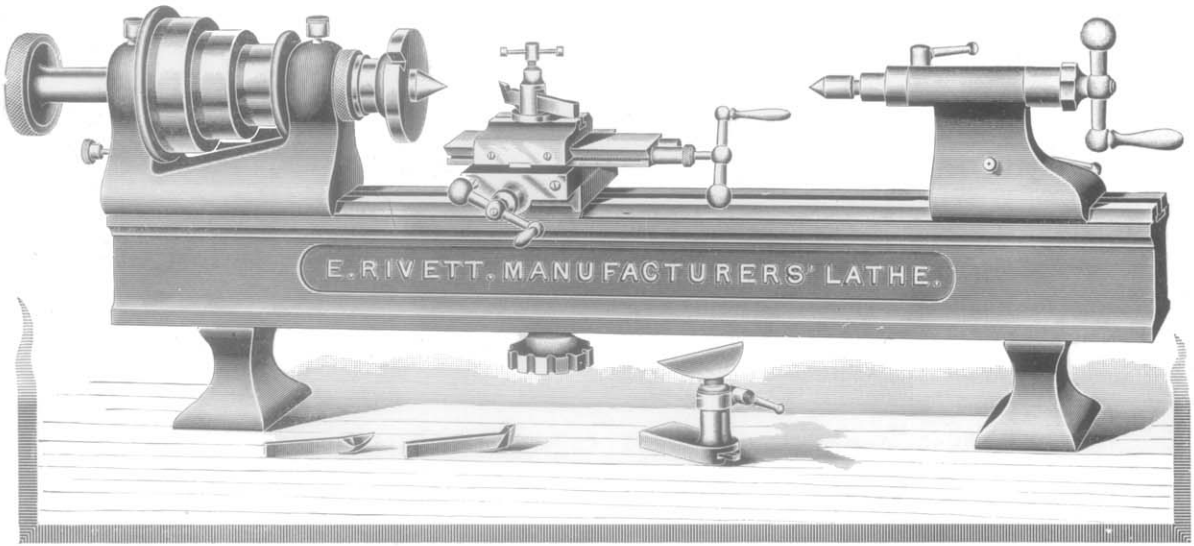
Price, $600.00 to $1000.00.

The speed of this machine was tested by A. M. Morin of Paris, France, and others, and affidavits as to the result are on file in the Patent Office at Washington, D.C.



Recognizing the fact that the speed of this machine is not only a great deal higher than what anybody else has been able to produce, but that it is utterly incomprehensible by some, as was evidenced recently when the superintendent of the machine shop of one of the first watch factories in the country, flatly told our Mr. Rivett that such a speed could not be got, that it was impossible, for that the highest running spindle that they had in the factory would run only 10,000 revolutions per minute. We have decided, in view of the fact that there may be some more of the same opinion, to show the way in which we have tested the speed of the spindle, so that no one will be able to say that we are simply deceiving ourselves as to its powers.

There is of course no odometer made that will register the speed that we wished to prove, and so with a system of pulleys arranged as shown on opposite page, we reduced the speed to where it was practical to measure it in the ordinary manner, with the very pleasing result that it showed ~~130,000~~ 130450 revolutions per minute for the spindle, though actually it must have been more than this on account of the slipping of the belts on the speed reversing pulleys. We have recently made one of these grinders for the Brown & Sharp Mfg. Co. of Providence, R. I., with which they report they are very well pleased.



RIVETT MANUFACTURERS' LATHE, No. 5.

Weight, with Slide Rest, 182 lbs. Price, Lathe, $125.00; Slide Rest, $30.00.

Rivett Manufacturers' Lathe, No. 5.

THIS lathe, our latest production, has been designed especially for manufacturing, where there is needed a large capacity through the chucks.

The lathe is made, not as a good many are when the size of the chuck is increased,—simply by making the hole through the spindle larger; but every part of the lathe is re-enforced, so that with the increase in the size and capacity of the chuck it loses nothing in strength and rigidity.

We believe that this is the extreme in size and weight for a bench lathe; and while we would not recommend it to take the place of our toolmaker's lathe, we have determined to give the best lathe in the world for a reasonable price.

The Slide Rest to go with this lathe, we make of the ordinary pattern, in order to keep the price at a reasonable figure. All the attachments for the No. 4 lathe fit this lathe, with the exception of the Milling Attachment, which will not go on this Slide Rest.

This lathe with our Cutting Off Slide, which has proved such a success, the Automatic Chuck Closer and Turret, make the strongest and most complete screw machine in the country.

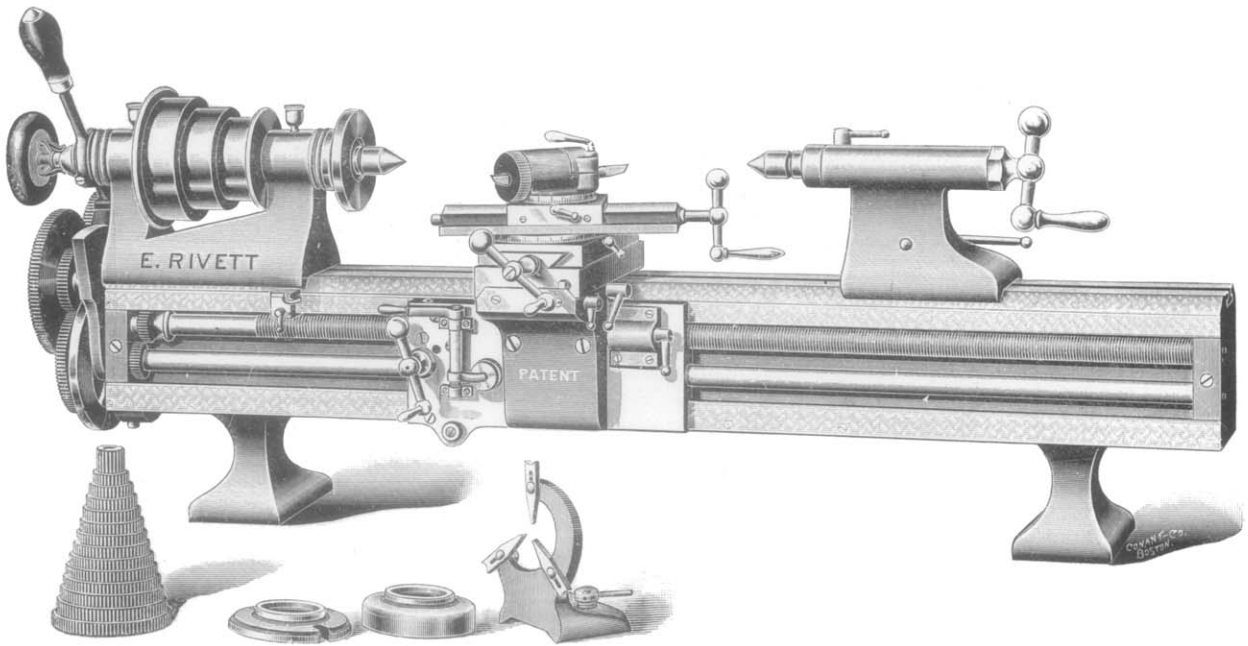
We invite requests for estimates as to what the lathe will do from intending purchasers, and would say that though the lathe looks small in comparison with a 16-inch lathe, a good many of the latter have spindles no larger than is put into this lathe.

Hardened spindle, bushings hardened and ground. Cone has steps 1½ inches wide, 3, 4 and 5 inches diameter. Capacity of chucks is from $\frac{1}{32}$ inch to $\frac{3}{4}$ inches, full size of chuck as shown on page 46.

Length of Bed, 42 inches. Swing, 8 inches. Distance between centers, 18 inches.

Weight of Lathe, 165 lbs. Weight of Slide Rest, 17 lbs.
Price " " $125.00. Price " " " $30.00.

Chucks, $3.00 each.



EIGHT-INCH PRECISION LATHE.

Weight, 250 lbs. Price, $450.00.

The 8-Inch Precision Lathe.

WE have now the pleasure of presenting and describing our truly superb production, the 8-in. Precision Lathe, and we take an honest pride in calling attention to its numerous and varied points of superiority.

This lathe is built for engineers, tool-makers, scientists and skilled operators of every profession, and is, we believe, the most complete tool of the kind ever conceived. With this lathe, starting with plain turning, the operations which may be performed are endless, and the operator has the comfort of knowing that they are, at the same time, absolutely correct and accurate.

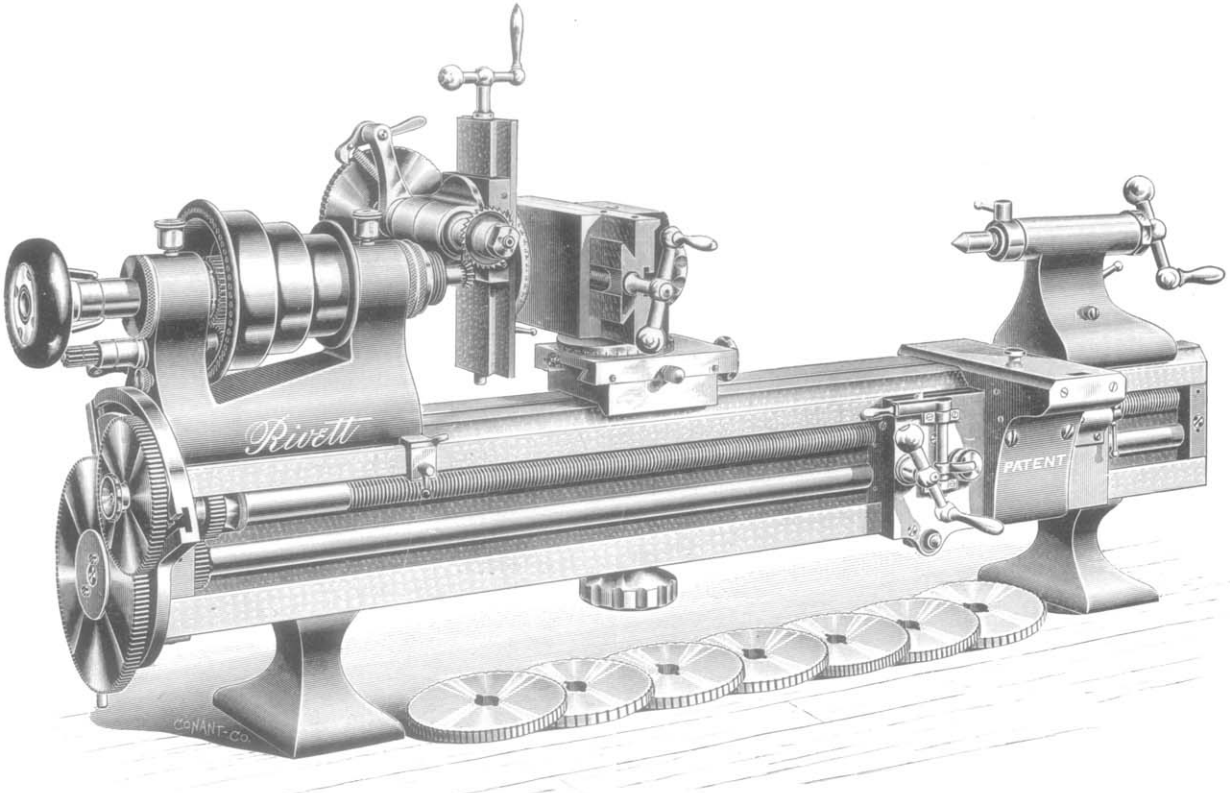
The lathe bed is 40 inches long, of the best grade of cast iron, milled and scrape finished, and polished on all sides. Distance between centers, 22 inches; swing, 8 inches. The large spindle bearing is 2⅛ inches in diameter, and tapered at converging angles nearest to the curve of least resistance, both spindle bearings being 2⅜ inches long.

The bearings are not boxes of iron, bronze, or softer alloys with caps to tighten until the journals are ruined and the alignment lost, but are cylindrical in form, of the best tool steel, and as are the spindles, made as hard as fire and mercury will make them, and then ground with diamond to perfect fits.

The slide rest is like the head and tail stocks, the same as the No. 4, but here the similarity ends, as in this lathe it becomes part of the carriage, merging thereby into the regular automatic cross feed compound slide rest.

The carriage is gibbed to the side of the bed, the V's being internal and out of the way of chips, as are also the feed rod and lead screw. The lead screw is cut from the finest tool steel, under a microscope, and with one of the best master screws in the country. Both long and cross feeds are automatic, the former controlled by the Rivett Friction Gear, acknowledged to be ahead of any in simplicity and strength of its grip, and the latter thrown in or out by the regular lever movement. The long feed is also regulated by an Automatic Stop, which may be adjusted to any point on the bed. The full capacity of the long feed is the whole distance of the bed between centers.

The change gears apply the same to the lead screw of the lathe, and that of the compound rest. Table of gears given with this lathe will be seen on page 37.



EIGHT-INCH PRECISION LATHE WITH CUTTER MILLING AND GEAR CUTTING ATTACHMENT.

The 8-Inch Precision Lathe,

WITH CUTTER MILLING AND GEAR CUTTING ATTACHMENT.

THE lathe is shown in this plate with the slide rest removed and set up for cutter milling or gear cutting, the carriage being run to the lower end of the bed out of the way.

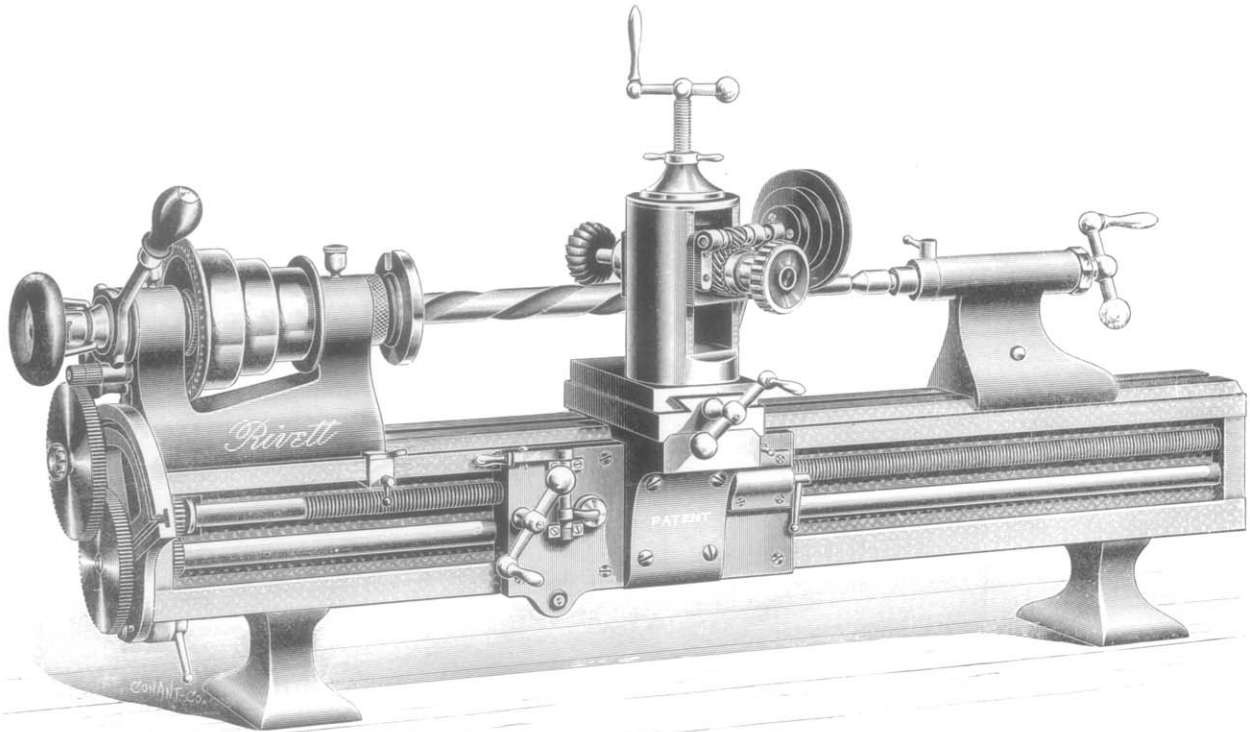
As the description of the cutter milling attachment is given on page 27, we will not repeat it, the attachment being the same for both lathes.

No extra belts are required, as previously mentioned; neither is it necessary to reverse the headstock, as is the case with certain lathes of other makes, which reversing is neither pleasing to the operator nor good for a lathe, no matter how carefully it may be done.

In this view of the lathe will also be seen the large friction gear on the end of the feed rod.

This friction gear takes the place of a belt and cone feed, and is far superior to the latter, as it not only allows the feed to slip in case of work jambing or other accident, but also has no limit to the variation of feeds allowed by the use of the change gears of the lathe, this feature being very important when taken in connection with the use of the Traverse Miller and Grinder shown on page 20.

This friction received the highest award at the World's Columbian Exposition, and shop rights have been sold to several of the most prominent tool-making concerns.



EIGHT-INCH PRECISION LATHE WITH TRAVERSE MILLER.

The Traverse Miller.

MADE ONLY FOR THE EIGHT-INCH PRECISION LATHE.

THE Traverse Miller and Grinder is so named because it will mill and grind work the entire length of the lathe, being traversed by either the feed rod or the lead screw. This attachment is used for all kinds of fluting, channeling, grooving, keyway cutting, etc. It is easy of adjustment, requiring about one minute to set up, and, with the graduated base, adjustable to any angle.

The attachment consists of a powerfully geared milling head attached to the slide rest, the cutter being driven with a pair of steel worm or spiral gears, giving the smoothest possible cut without chatter, and the range of fineness in work done by the lathe thus set up exceeds anything of the kind in the world today.

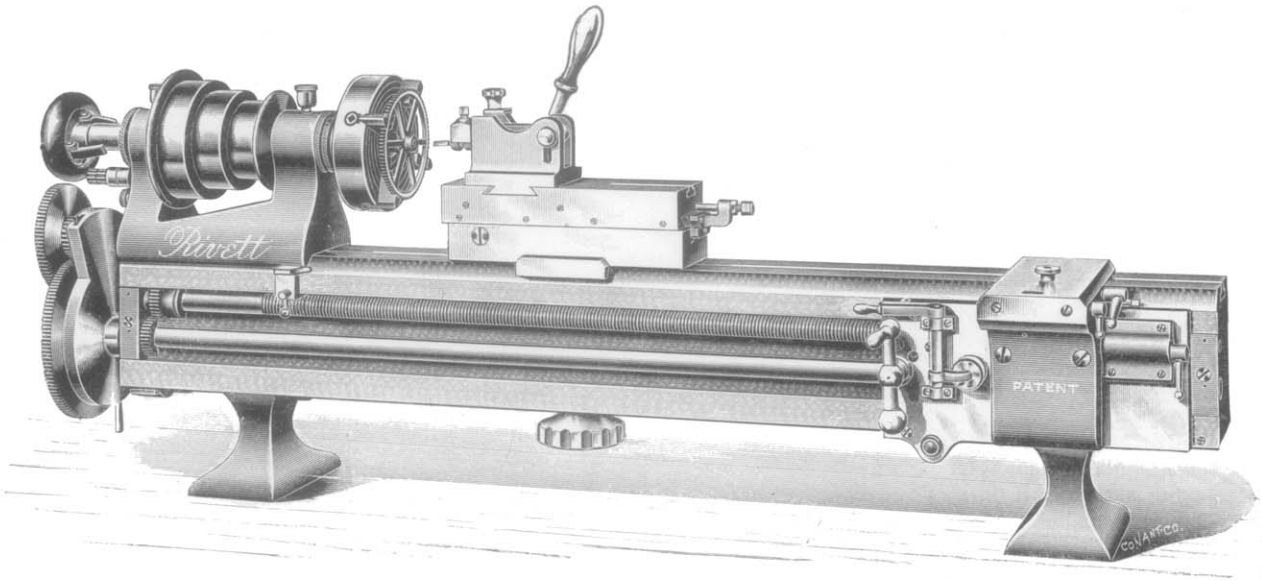
With this Miller, the operator may put a keyway in a shaft as small as one-eighth of an inch in diameter, the full length of the lathe between centers, or flute a reamer three inches in diameter.

For fluting taps, reamers, broaches, counterbores, or any work requiring flutes or channels, this miller will do the work quickly and with perfect accuracy.

The Grinder is simply a spindle and bearing fitting the spindle of the miller, and used for following up the work of the cutter after the work is hardened.

The split and arbor chucks fit the spindle of the traverse miller, the same as they do the spindles of the lathe and the cutter miller.

NOTE.— In a short time we shall have ready a spiral attachment to be used in connection with this miller, for the purpose of milling and grinding spiral reamers and all other spiral work.



EIGHT-INCH PRECISION LATHE WITH SLOTTING ATTACHMENT.

The Slotting Attachment.

MADE FOR THE NO. 4, AND 8-INCH PRECISION LATHE.

IN connection with the Traverse Miller and its work of splining shafts, we would next submit our Slotting Attachment. How many mechanics, especially in the experimental line of engineering, but have often had to key a very small wheel to an equally small shaft. With a large wheel or wheel of large bore, it is a comparatively easy matter, even if not blessed with a regular slotting machine, but with a small hole, the misery of scratching away with a delicate chisel and thin file is well known, and the results are never satisfactory.

With the Rivett Slotter, however, it is but the work of a minute to put a key-seat in as small a hole as a cutter may be made to stand the work.

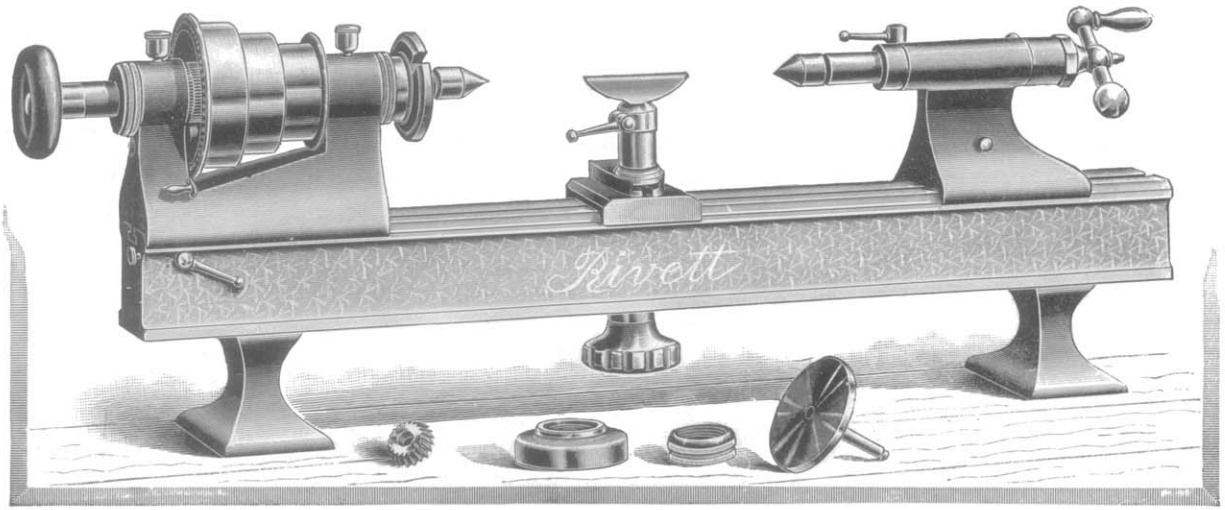
The entire time necessary to put a key-seat in a hole of ¼ inch diameter and ¾ inch long is from forty seconds to two minutes, according to the metal worked.

These figures are not guess work, but are taken from regular shop practice.

The attachment, as shown in the plate, consists of a small shaper head, stiffly and strongly built, resting in V's on the cutting-off slide of the screw machine, the slide fitting the bed of the lathe both transversely and laterally.

The stroke is made by hand, giving extreme delicacy of cut, and the feed is also by hand, allowing nicety of depth. The thrust is toward the live head.

By the use of this attachment a wheel may be key-seated without removal from the chuck, where it may have been turned or faced, and that with a certainty that it will fit when finished.



RIVETT NO. 4 BENCH LATHE.

Weight, 140 lbs. Price, $125.00.

The Rivett No. 4 Bench Lathe.

WE now come to the No. 4 Bench Lathe, shown in the opposite cut, which, like the No. 3, is intended for all kinds of fine, accurate work, and is especially adapted to the use of model makers, electricians, tool-makers, rapid manufacturing, etc.

The head and tail stocks of this lathe, as well as all parts of the bed, are the same in size, build and finish as for our 8-inch Precision Lathe.

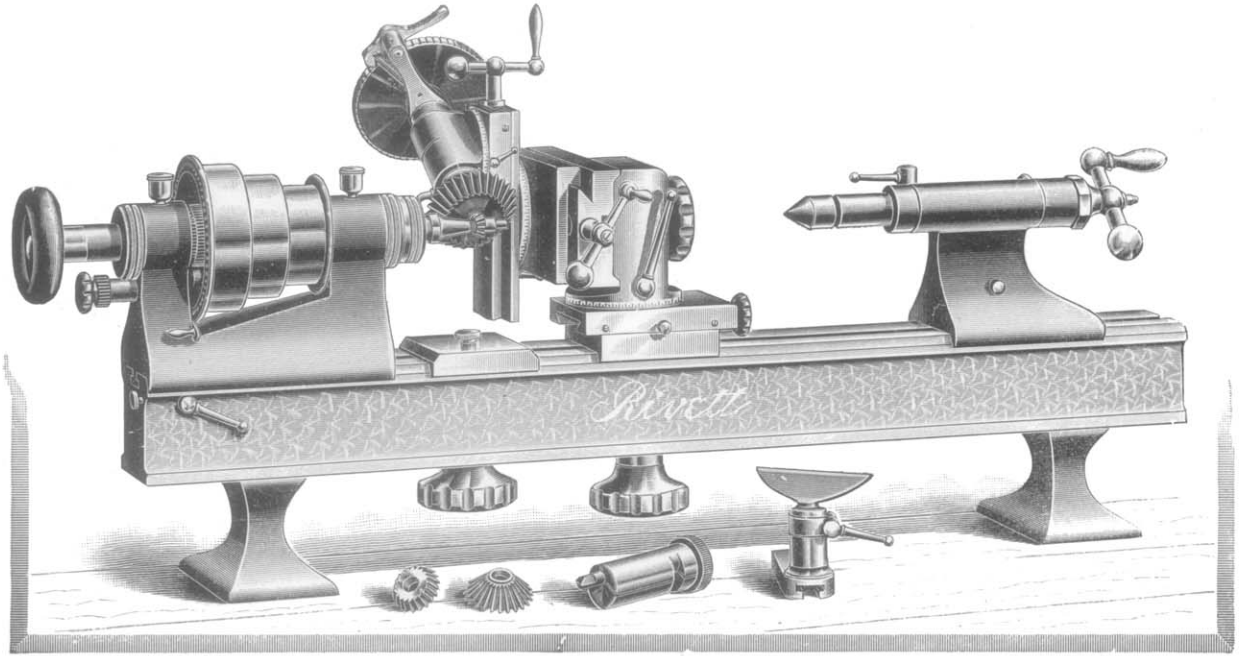
Split or spring chucks are made for this lathe, holding from $\frac{1}{32}$ to $\frac{1}{2}$ inch diameter, the drawbar being hollow, enabling stock of any length to be run through the live spindle.

The cone is a three-step reversed for 1¼ belt, the large flange being drilled as an index plate, useful for indexing and spacing work, etc.

The bed, feet, and all parts of this lathe are milled with forming cutters, scrape finished and polished, leaving no skin of casting to cause unequal strain and false alignment

Length of bed, 36 inches; swing, 8 inches; distance between centers, 18 inches; hole through spindle, ¾ inch.

A good medium speed for the countershaft for general work is 700 revolutions per minute for fast speed, and 350 for slow speed and reverse motion; for electrical, brass, or very light work, 100 revolutions or so may be added to this speed, and for turning tool steel, or work of large diameter, cutters, etc., the speed should be decreased all of 100 revolutions.



RIVETT NO. 4 BENCH LATHE WITH MILLING ATTACHMENT.

The No. 4 Bench Lathe, with Cutter Milling Attachment.

THE Cutter Milling and Gear Cutting Attachment, mounted in conjunction with the Slide rest, as seen in this cut, is also the same as that made for the 8-inch Precision Lathe.

This attachment has two rotary, as well as horizontal, vertical and angular movements, enabling cutters of any possible shape up to a diameter of 3 inches, and gears to 4 inches, to be cut.

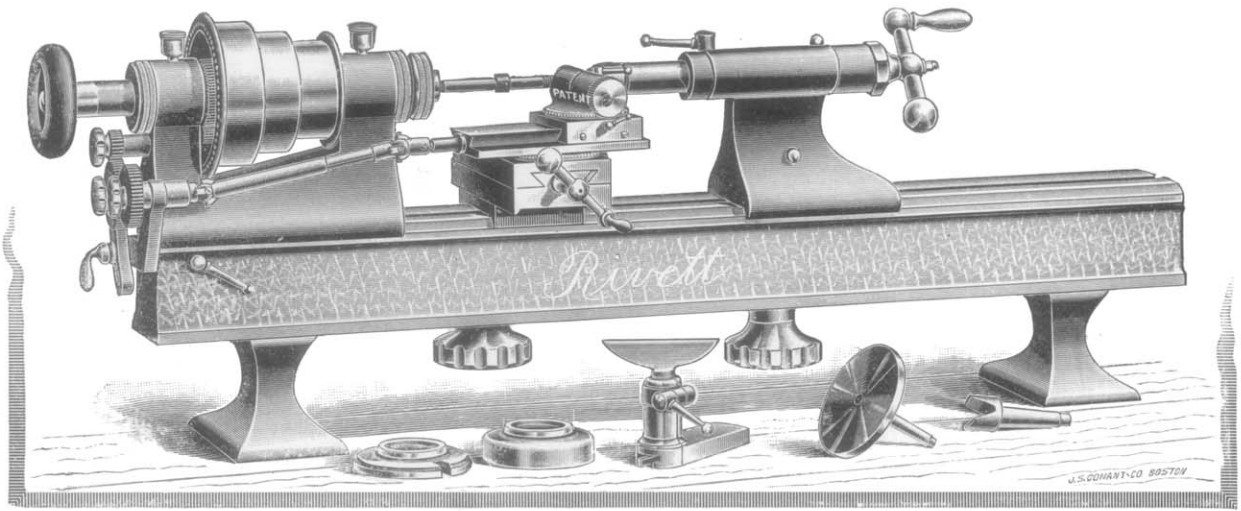
The cross feed is 4 inches in length, the vertical and angular feed 5 inches.

Eight index plates are furnished, of the numbers 45, 56, 60, 64, 72, 80, 84 and 100. Any others possibly desired will be supplied at a low cost.

This attachment will mill balls from ⅛ to 1½-inch in diameter, flute taps, mill cutters, counterbores, cut gears, etc., and requires no extra belting as with most other machines.

We would call attention on pages 58 to 64 to some of the various shapes of cutters made with this attachment, one of which, as will be noticed, was cut at our works on a wager in twenty-seven minutes.

Though we have milling machines of the best makes in our shops, we cut nearly all our forming cutters for our large milling machine on either our No. 4 or 8-inch Precision Lathe, for the simple reason that we can do it to better advantage.

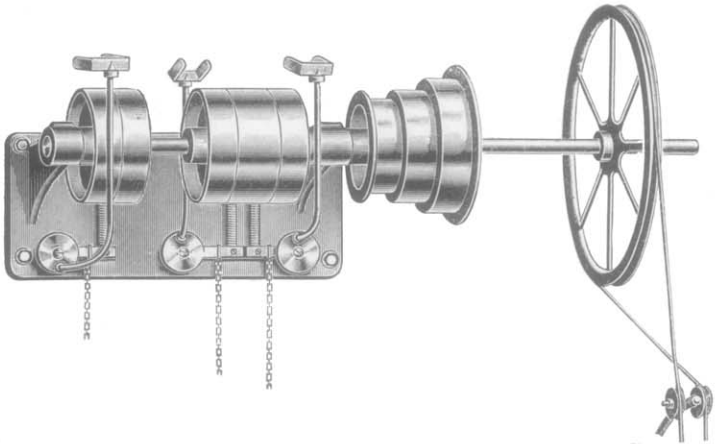


RIVETT No. 4 BENCH LATHE WITH SCREW CUTTING ATTACHMENT FOR SLIDE REST.

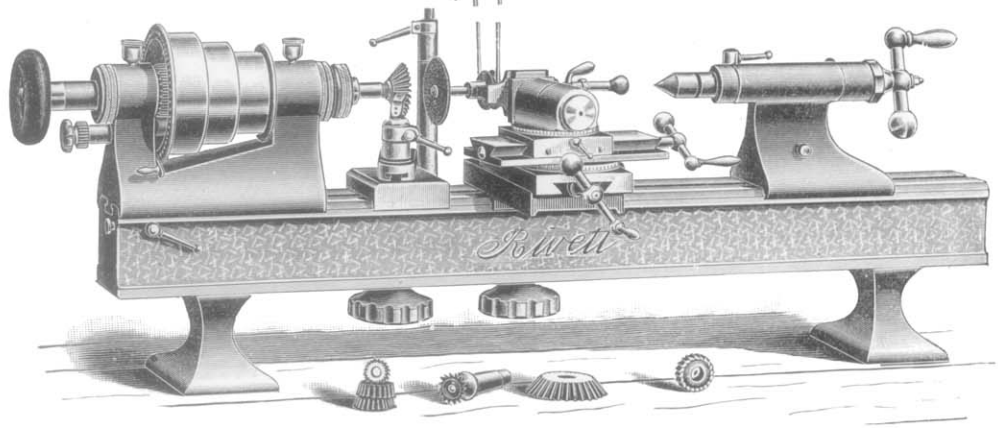
The No. 4 Screw Cutting and Taper Attachment.

THIS attachment is like that of the No. 3 Bench Lathe and 8-inch Precision Lathe, used for screw cutting or plain work on short traverse, feeding four inches, and by means of the splined sleeve and ball joints, capable of turning tapers to an angle of sixty degrees.

The cone is internally geared, having reverse motion as on larger lathes, and the quadrant carrying the change gears, together with the splined shaft are set up or removed in the fraction of a minute. The simplicity of this attachment is marked and has only to be seen to be appreciated.



No. 4 BENCH LATHE, WITH GRINDING ATTACHMENT AND COUNTERSHAFT.



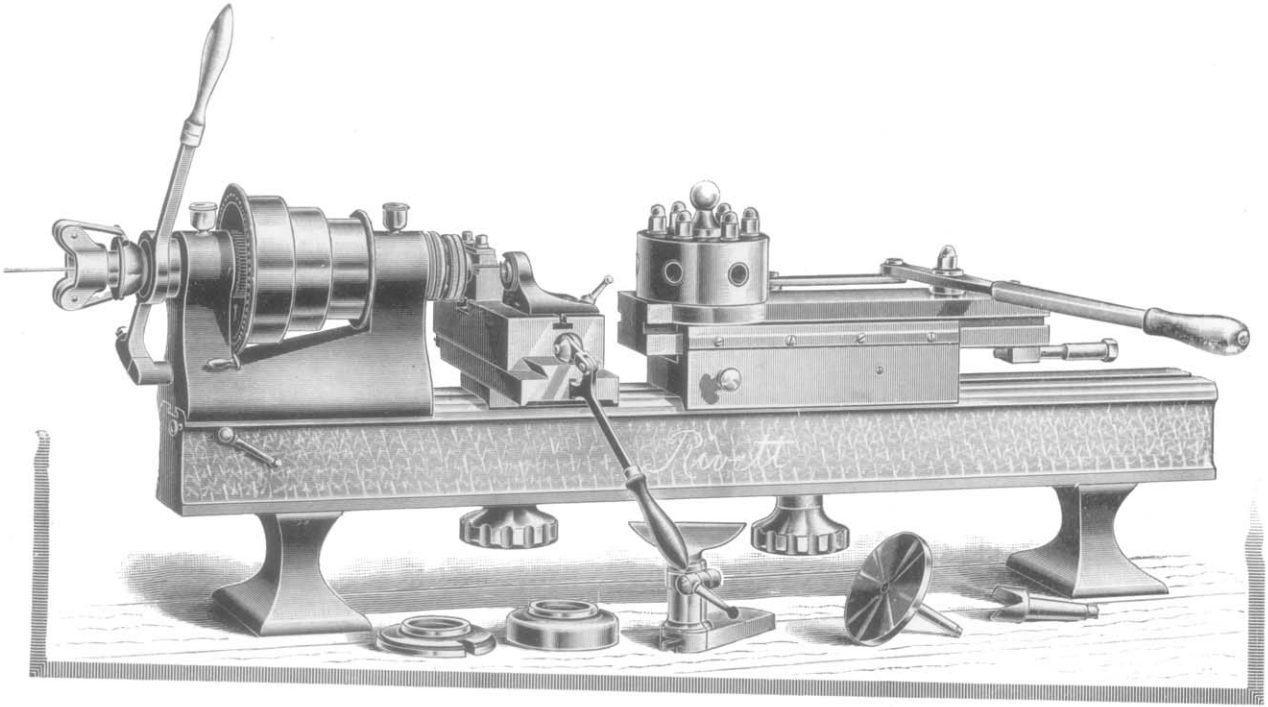
The No. 4 Grinding and Lapping Attachment.

THIS attachment requires about twenty seconds to set up ready for any kind of grinding or diamond lapping, external, internal, angular or surface, and in the simplicity of its arrangement and ease of manipulation is second to none in the world.

The spindle is of fine tool steel, hardened and ground, has adjustment in every direction, and is finished like the rest of our work, with scraped surfaces and hardened bearings.

The grooved wheel of aluminum on the countershaft, with which the grinder is driven, is a great improvement over the wooden drum of old times, the round belt being guided by the idler pulleys on the curved column seen in the cut.

A good and well made tool cannot be too stiff, and this desideratum has been most carefully watched in all parts of the lathe and its attachments.



RIVETT No. 4 BENCH LATHE WITH TURRET ATTACHMENT.

The Screw Machine.

WE take up now the description of a form of attachment only made in connection with the No. 4 and Precision Lathe; namely, the Screw Machine.

This cut shows the lathe set up with regular six-hole turret, cut-off slide, closer, etc., and second to no other as an accurate Screw Machine.

The split chucks used in this connection, as well as in other operations of the lathe, are all hardened and then ground true with diamond, and are therefore absolutely accurate, and our Patent Automatic Closer is, we believe, ahead of any in the extreme simplicity of its action and strength of its grip.

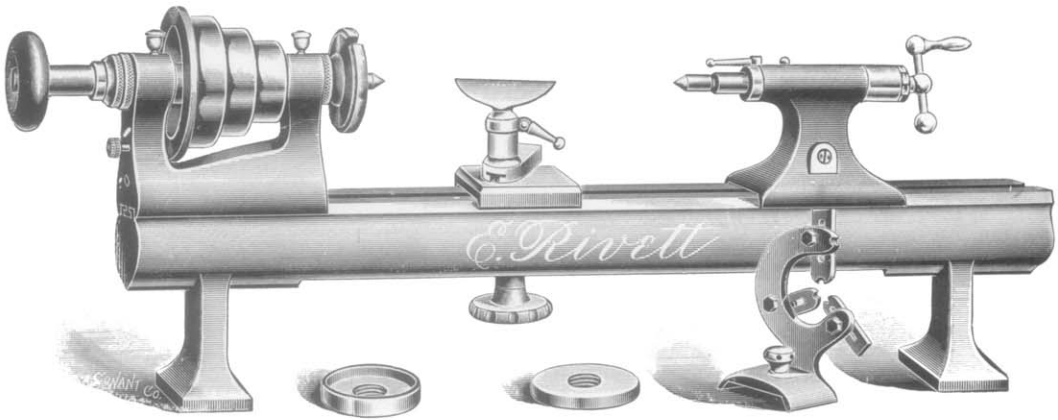
The cutting off slide has an improved tool holder, for horizontal adjustment, and holding forming cutters of various shapes, giving great range of angles and curves in the heads and necks of screws or studs. This machine will be found extremely useful where a screw machine is wanted for but a few hours at a time, for the change from the plain lathe to the screw machine is made inside of two minutes.

Size of holes in turret, $\frac{11}{16}$ inch; length of turret stroke, 4 inches; length of bearing of turret slide, 9½ inches.

With this machine any and all forms of screws, studs (from ½ inch down), and, in fact, anything that is seen advertised in the catalogues of screw machines, may be made, precisely the same as on the commercial screw machine, which admits of no change of operation from that for which it is especially designed.

The extreme solidity of all the component parts is noticeable in this cut.

On the under side of the cut-off slide is seen a square tongue which comes into use when the slide is set parallel on the shears and used as a slotter, as shown on page 22, fitting into the T slot of the bed, securing central alignment and firm bearing.



RIVETT NO. 3 BENCH LATHE.

Weight, 95 lbs. Price, $80.00.

The Rivett No. 3 Bench Lathe.

THE cut on the opposite page shows our No. 3 Bench Lathe, which is our original production in this line.

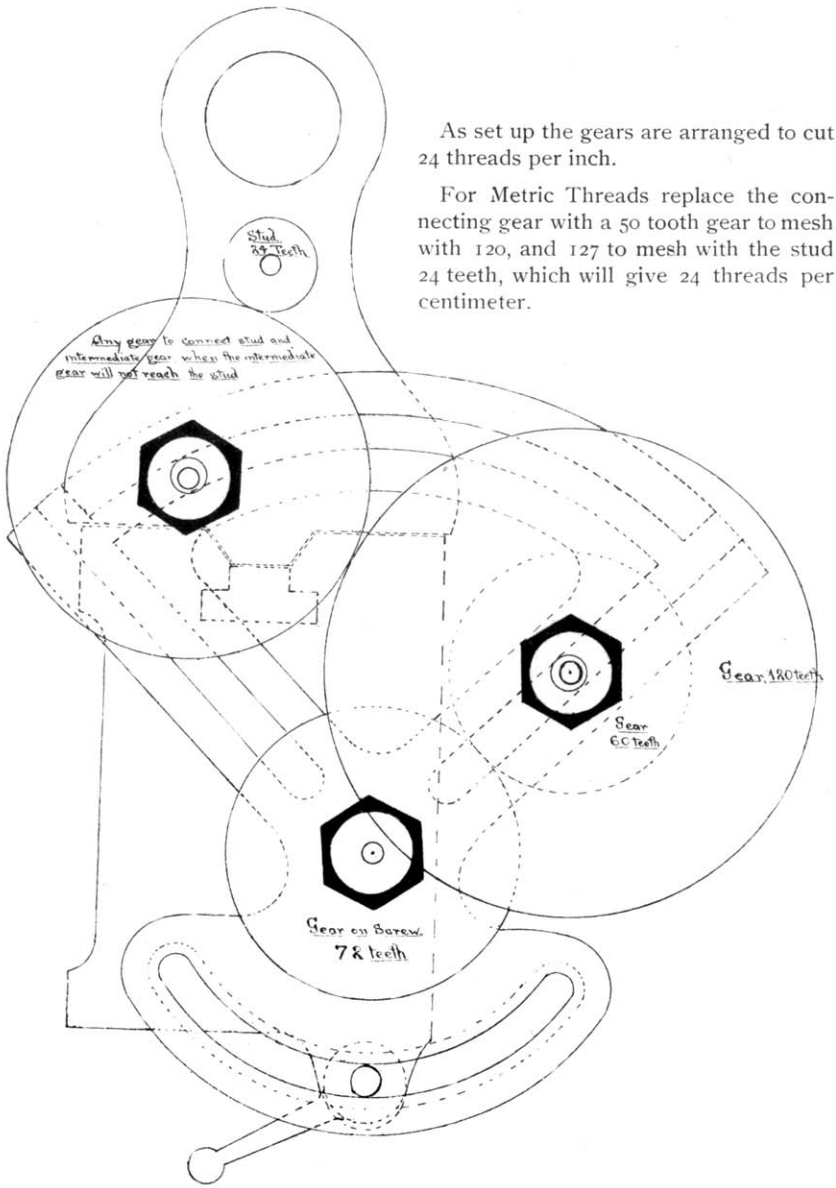
This lathe has hardened spindle and bearings, made and finished in precisely the same manner as our larger tools.

We furnish to order in size proportionate for this lathe the cutter milling and gear cutting, screw and taper cutting, and grinding attachments, made in the same style as those on our larger lathes, description of which will be found further on. This lathe is the same size as the largest made by other makers of similar tools.

Length of bed of No. 3 Lathe, 32 inches; swing, 7 inches; distance between centers, 18 inches; hole through spindle, $\frac{19}{32}$ inch; largest size of spring chuck for this lathe, $\frac{13}{32}$ inch.

As set up the gears are arranged to cut 24 threads per inch.

For Metric Threads replace the connecting gear with a 50 tooth gear to mesh with 120, and 127 to mesh with the stud 24 teeth, which will give 24 threads per centimeter.

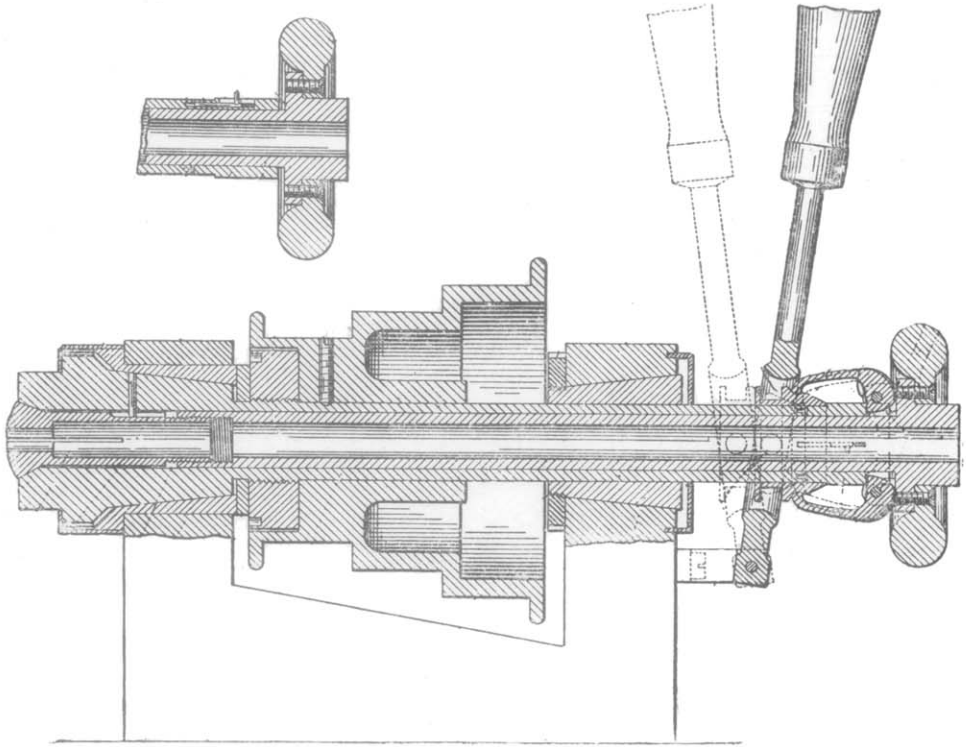


Rivett Gear Tables.

8-IN. PRECISION LATHE.				
No. Threads.	Stud.	Compound.		Screw.
10	24	...	..	60
11	24	...	..	66
12	24	...	..	72
13	24	...	..	78
14	24	..	..	84
15	24	...	..	90
16	24	...	..	96
17	24	...	..	102
18	24	...	..	108
19	24	...	..	114
20	24	...	.	120
22	24	120	60	66
24	24	120	60	72
26	24	120	60	78
28	24	120	60	84
30	24	120	60	90
32	24	120	60	96
34	24	120	60	102
36	24	120	60	108
38	24	120	60	114
40	24	120	60	120
44	24	120	30	66
48	24	120	30	72
52	24	120	30	78
56	24	120	30	84
60	24	120	30	90
64	24	120	30	96
68	24	120	30	102
72	24	120	30	108
76	24	120	30	114
80	24	120	30	120

NO. 4 LATHE.				
No. Threads.	Stud.	Compound.		Screw.
10	15	..	..	30
11	15	..	..	33
12	15	..	..	36
13	15	..	..	39
14	15	..	..	42
15	15	..	..	45
16	15	..	.	48
17	15	..	..	51
18	15	..	.	54
19	15	..	.	57
20	15	..	..	60
22	15	96	48	33
24	15	96	48	36
26	15	96	48	39
28	15	96	48	42
30	15	96	48	45
32	15	..	..	96
34	15	96	48	51
36	15	96	48	54
38	15	96	48	57
40	15	96	48	60
44	15	96	24	33
48	15	96	24	36
52	15	96	24	39
56	15	96	24	42
60	15	96	24	45
64	15	96	24	48
68	15	96	24	51
72	15	96	24	54
76	15	96	24	57
80	15	96	24	60

NO. 3 LATHE.				
No. Threads.	Stud.	Compound.		Screw.
10	30	..	..	30
11	30	..	..	33
12	30	..	..	36
13	30	..	..	39
14	30	..	..	42
15	30	..	..	45
16	30	..	..	48
17	30	..	..	51
18	30	..	..	54
19	30	..	..	57
20	30	..	..	60
22	30	96	48	33
24	30	96	48	36
26	30	96	48	39
28	30	96	48	42
30	30	96	48	45
32	30	..	..	96
34	30	96	48	51
36	30	96	48	54
38	30	96	48	57
40	30	96	48	60
44	30	96	24	33
48	30	96	24	36
52	30	96	24	39
56	30	96	24	42
60	30	96	24	45
64	30	96	24	48
68	30	96	24	51
72	30	96	24	54
76	30	96	24	57
80	30	96	24	60



RIVETT AUTOMATIC CHUCK CLOSER.
(Patented.)

Rivett Automatic Chuck Closer.

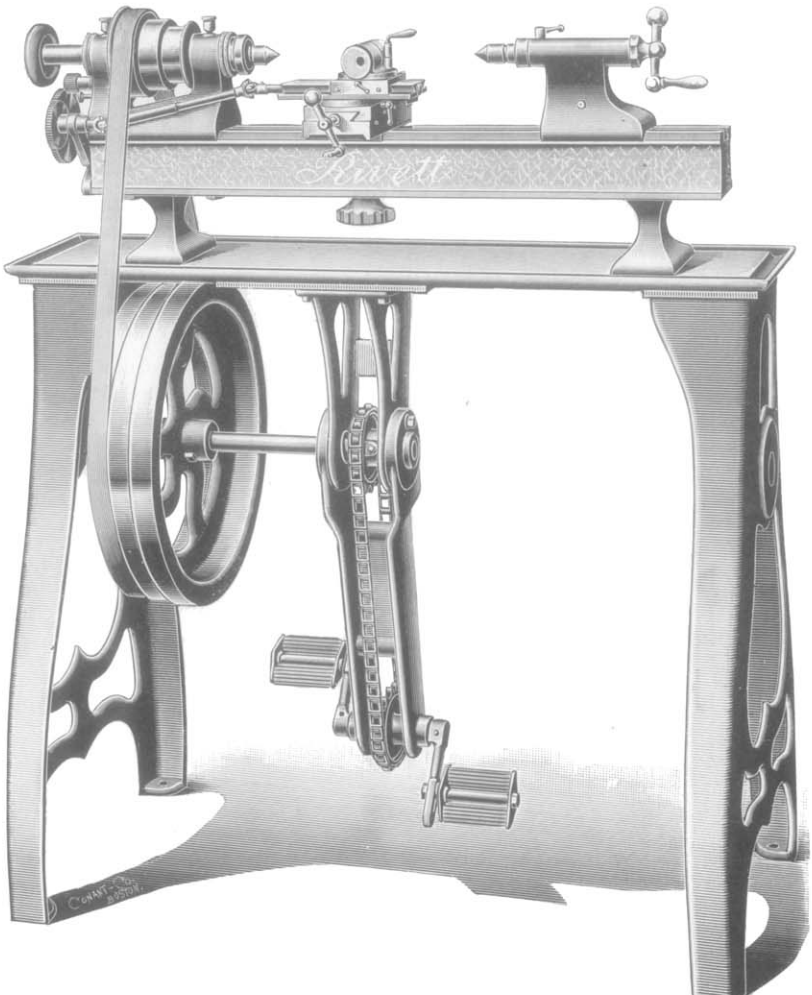
(Patented.)

OUR Rivett Automatic Chuck Closer is one of the greatest time and labor saving devices of the present day. With its assistance work can be done from two to five times as quickly, according to the metal worked—as is possible without it.

This Closer removes all the objections which have hitherto been advanced to the detriment of the split chuck, as there is no wear on the thread of the chuck, and it can be opened and closed more rigidly than by hand, while the lathe is in motion.

We find this Closer very advantageous even on jobbing work, as there are very few pieces that have not to be chucked two or three times, and it takes no longer to adjust the chuck in this closer than in an ordinary draw-in spindle.

The mechanism consists of a sliding collar moved by a lever, this collar operating two dogs or levers that press against a collar placed at the end of the spindle, and force the draw tube back. This arrangement, of course, leaves the hand wheel to be used in the ordinary manner when a chuck is first put in place, or when for any reason it is preferable. The sliding collar is also provided with a locking pin, which prevents the draw tube from tightening or loosening itself when once adjusted.



RIVETT BICYCLE FOOT POWER FOR BENCH LATHES.

Weight, without Lathe, 350 lbs. Price, $50.

The Rivett Bicycle Foot Power.

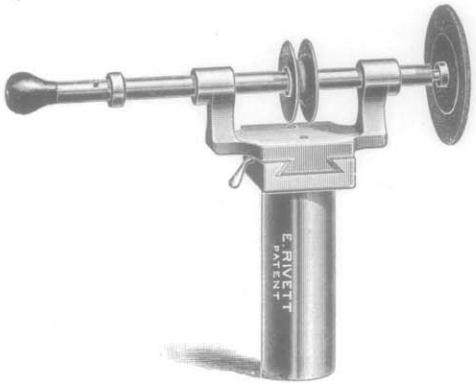
ON page 24 is shown the Table and Bicycle Foot Power as made for both the No. 4 and the 8-in. Precision Lathes. This foot power is of improved form and superior construction, and is furnished to order, when desired, by those who do not have steam or other power at command.

The table, which we recommend as far better than a wooden bench, is of cast iron, well balanced and stiff, with the top planed and polished, giving a clean, true surface, which is much to be preferred to the old style of mounting small lathes.

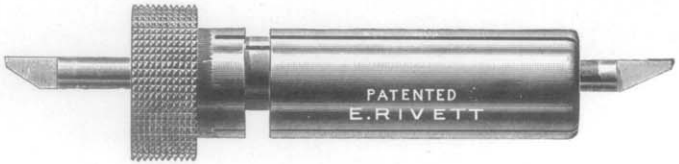
The foot power has been given the same careful attention that is characteristic of all our work, and will be found equally pleasing to the operator. The wheel is very heavy, giving regularity of motion with a greater power than a lighter one. The chain has adjustment for wear, and the whole is finished as well as we know how to do it. Weight of table and foot power for No. 4 lathes, 350 pounds.

The same size of power is supplied with the Precision Lathe, but the table is longer.

Those who use this power are highly pleased with it, and we shall be glad to furnish references regarding it to any one contemplating the purchase of the same.

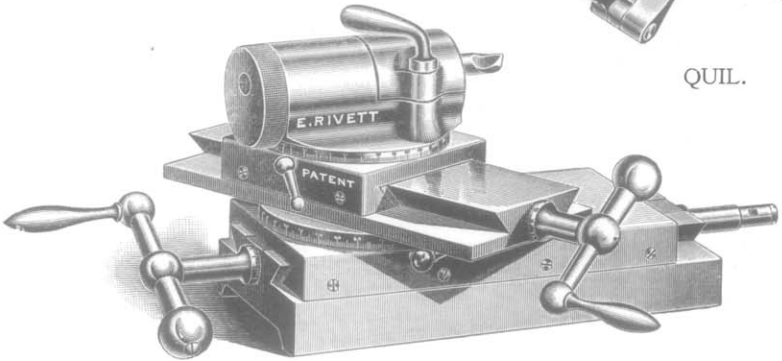


GRINDING ATTACHMENT. $25.00.

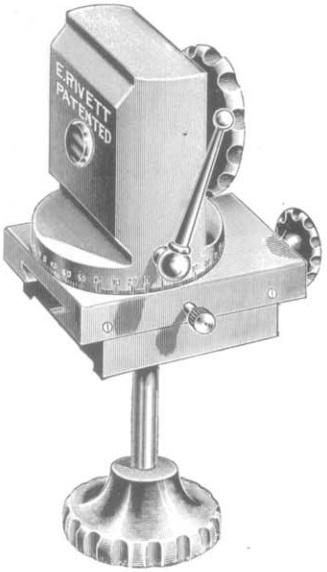


TOOL HOLDER FOR SLIDE REST.

QUIL.



SLIDE REST. $60.00.



REVOLVABLE TAIL STOCK. $75.00.

The Rivett Slide Rest.

THE Rivett Compound Slide Rest as used on the No. 3 and No. 4 Lathes, and which becomes, when placed on the Precision Lathe, an Automatic Cross Feed Compound Slide Rest, is, with its rotary tool holder, worthy of especial examination. As will be seen in the cut, the rest has two circular graduated bases, which by setting at any point renders turning to exact angles extremely simple, and adjusting tools, such as inside and outside thread tools, a matter of ease together with absolute accuracy. An illustration of the latter advantage is given on pages 44 and 45.

Our plan of securing the revolving parts is so carefully arranged that a slight pressure on the small thumb levers seen in the cut is sufficient to hold them securely.

The tool-holder, which is shown removed from the rest, is an eccentric device, easily adjusted to the center, and by its use we are enabled to shorten the cutting tool to the work, making it very solid, with no tendency to vibrate or chatter while cutting

The simplicity of the Rivett tools renders it very easy for any one to make his own tools, as there is no forging needed. Sets of tools will be furnished to order.

The revolvable tailstock is used in connection with the cutter milling attachment, and carries the slide in this adjustment. As seen, it is heavily built, has rotary as well as lateral motion, and is graduated at the base, thereby insuring perfect angles on cutters and other milled work.

Grinding Attachment.

This attachment is fitted to the slide rest, and is used in place of the tool-holder. It is intended for internal and external grinding, and for facing and sharpening or backing off cutters.

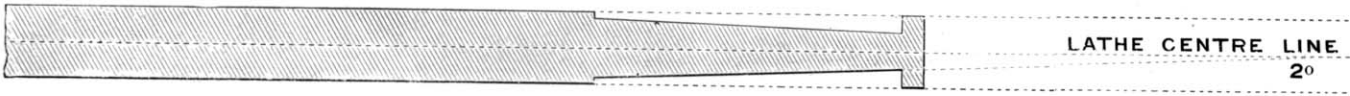


FIG. A

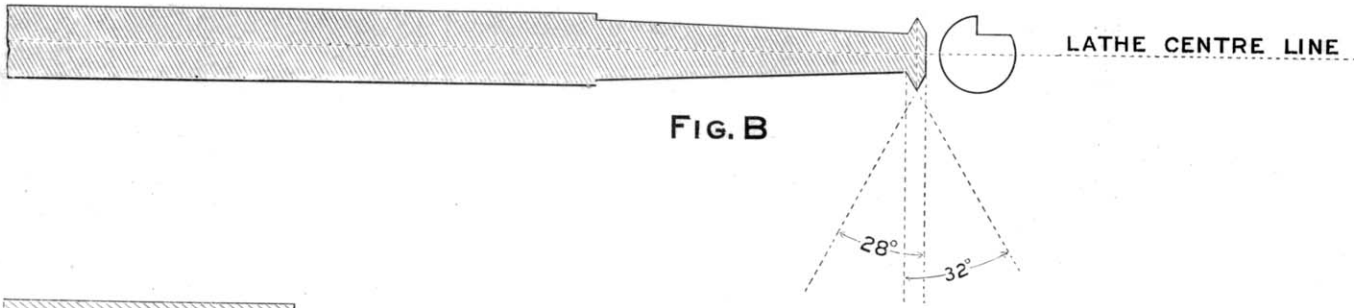


FIG. B

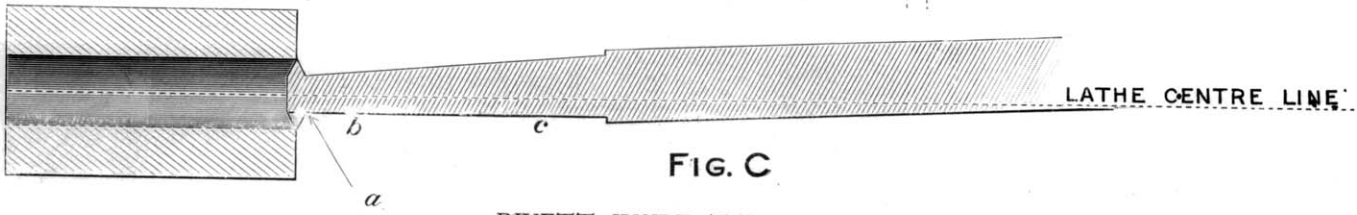


FIG. C

RIVETT INSIDE THREADING TOOLS.

50 Cents Each.

The Rivett Lathe Tools.

THE Toolholder (page 42) is one of the numerous improvements to which we would respectfully call special attention, as it is a radical departure from the general run of lathe tool posts, and with its close fitting tools of round instead of rectangular stock, absolute adjustment as to angles is obtained, the tools being revolvable on their own axis, and thereby enabling the same tools to be used for either right or left hand work, but few tools are needed, where with the old style post for the same work a large number must be provided.

On page 54 we show cuts of tools in every day use, and on page 44 we give a section cut of the Rivett Inside Threading tool, and offer at the same time a slight explanation regarding the same.

Every mechanic is aware of the difficulty with which an inside threading tool is ground and set exactly by the use of the thread gauge to cut a fine, perfect thread close to the shoulder.

With the Rivett tool, however, together with the use of the graduated compound rest, all this annoyance is absolutely obviated and perfect work produced.

The Rivett tool is made as follows:

The round bar steel is first turned as in Fig. A, to an angle of two degrees off the line of the lathe, and finished at the end with a shoulder. The V of sixty degrees is then cut two degrees off the center line, that is, to angles of twenty-eight degrees and thirty-two degrees from a right angle to the lathe center line, by setting the compound rest at sixty-two and fifty-eight, and the cutting edge ground as shown in the end section, Fig. B.

The tool is then set with the compound rest two degrees off the line of the lathe, as shown in Fig. C, thereby bringing the cutting side of the neck (B C) parellel to the lathe center line, and allowing the thread to be cut to the full depth of the V at the point A. Both the inside and outside threading tools may be taken out and ground with a perfect certainty of replacing them precisely in the same position, one of the very annoying problems in the old style tool post.

FULL SIZE.

CHUCK FOR NO. 3 LATHE.

Capacity of Set, from $\frac{1}{64}$ in. to $\frac{3}{32}$ in. by 64ths.

Price, $2.00 each.

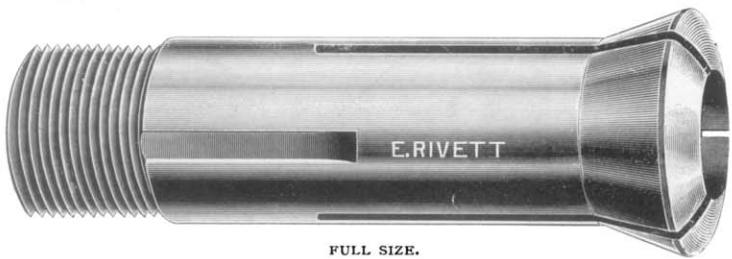
We are the largest manufacturers of Split Chucks in the country, if not in the world. They are well known for their good design, and several manufacturers have adopted the Rivett Chucks for their machines.

FULL SIZE.

CHUCK FOR NO. 4 AND 8-INCH PRECISION LATHES.

Capacity of Set, from $\frac{1}{32}$ in. to $\frac{1}{2}$ in. by 64ths.

Price, $2.50 each.



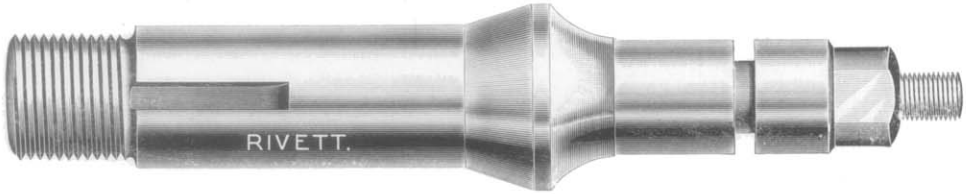
FULL SIZE.

CHUCK FOR NO. 4 MANUFACTURERS' LATHE.

Capacity of Set, from $\frac{1}{32}$ in. to $\frac{3}{4}$ in. by 64ths.

Price, $3.00 each.

Our SELF-CENTERING CHUCKS are made of the Best Tool Steel, Hardened, and carefully ground with diamond.



FULL SIZE

ARBOR CHUCK.

Price, $3.00.

HALF SIZE.

STEP CHUCK.

HALF SIZE.

CLOSER FOR STEP CHUCK.

Rivett Manufacturers' Lathe No. 3.

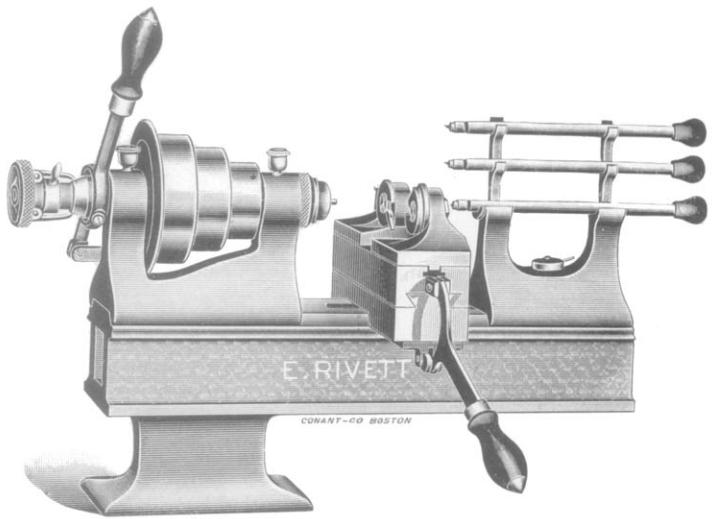
The accompanying cut shows our No. 3 Manufacturers' Lathe, especially designed for rapid manufacturing.

For electrical work, forming, drilling, etc., this machine can be handled much more rapidly than a turret.

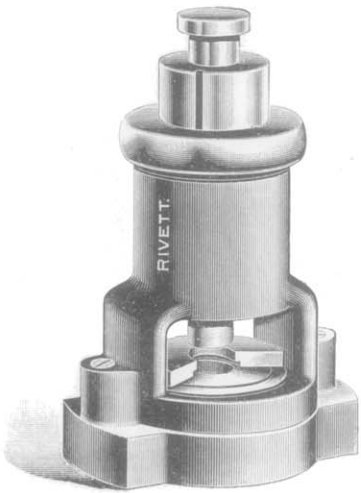
The forming slide is very nearly as heavy as that on our No. 4 Lathe and it is capable of taking a 1¼-inch chip.

Swing, 7 inches. Weight, 65 lbs.

Price, $200.

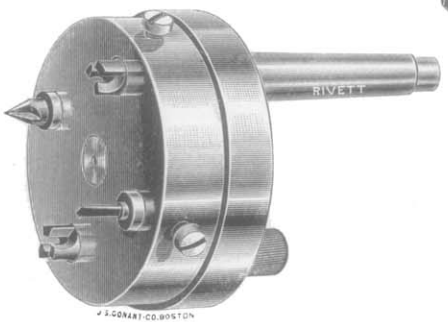


The Rivett Sub-Press.



The Rivett sub-presses complete with dies are made only to order, to drawing or models ; they are made either simple or compound.

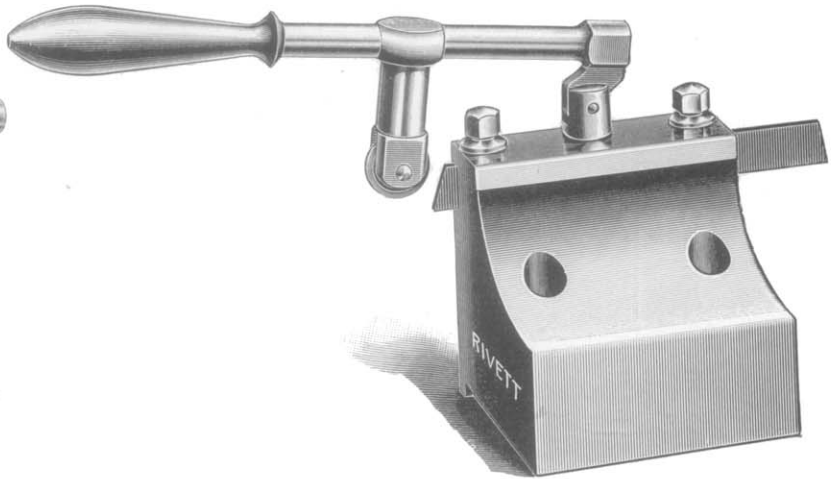
The bases and stands are of uniform height, 8 inches, when the punch and die are together ; the regular size for watch factory, clock, and all work of that kind. The piston works in a Babbit metal bearing, and means are provided for taking up the wear.



TURRET TO GO ON TAIL STOCK.

For Quick Manufacturing.

Price, $15.00.



ATTACHMENT TO GO ON SLIDE REST.

For Cutting off and Knurling, producing work rapid and accurate. Price, $15.00.

V CENTER.

Price, $1.50.

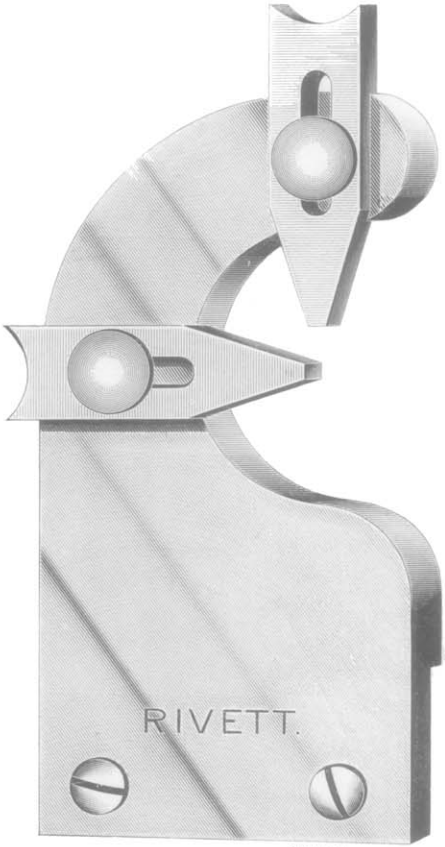
TWO-THIRDS SIZE.

DRILL PLATE.

Price, $2.00.

REVOLVABLE V CENTER.

Price, $3.00.



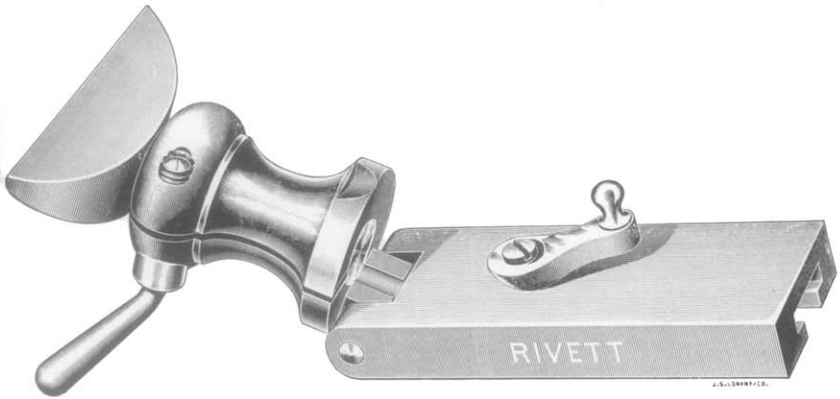
HALF SIZE.

FOLLOWER REST. Price, $6.00.

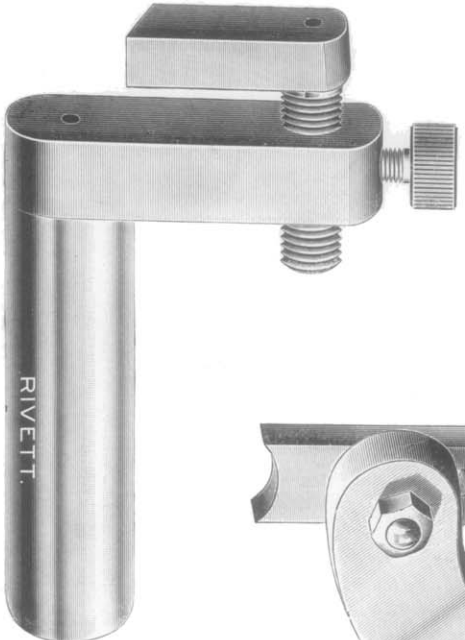
HALF SIZE.

TRIANGLE TABLE.

Price, $2.00.



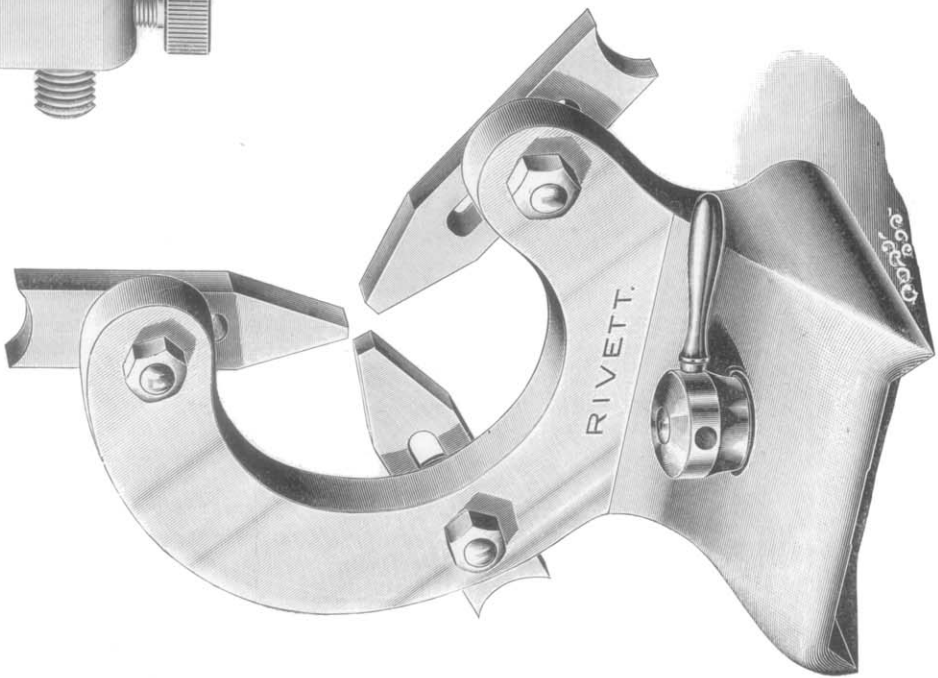
TIP OVER T-REST. Price, $7.00.



FULL SIZE.

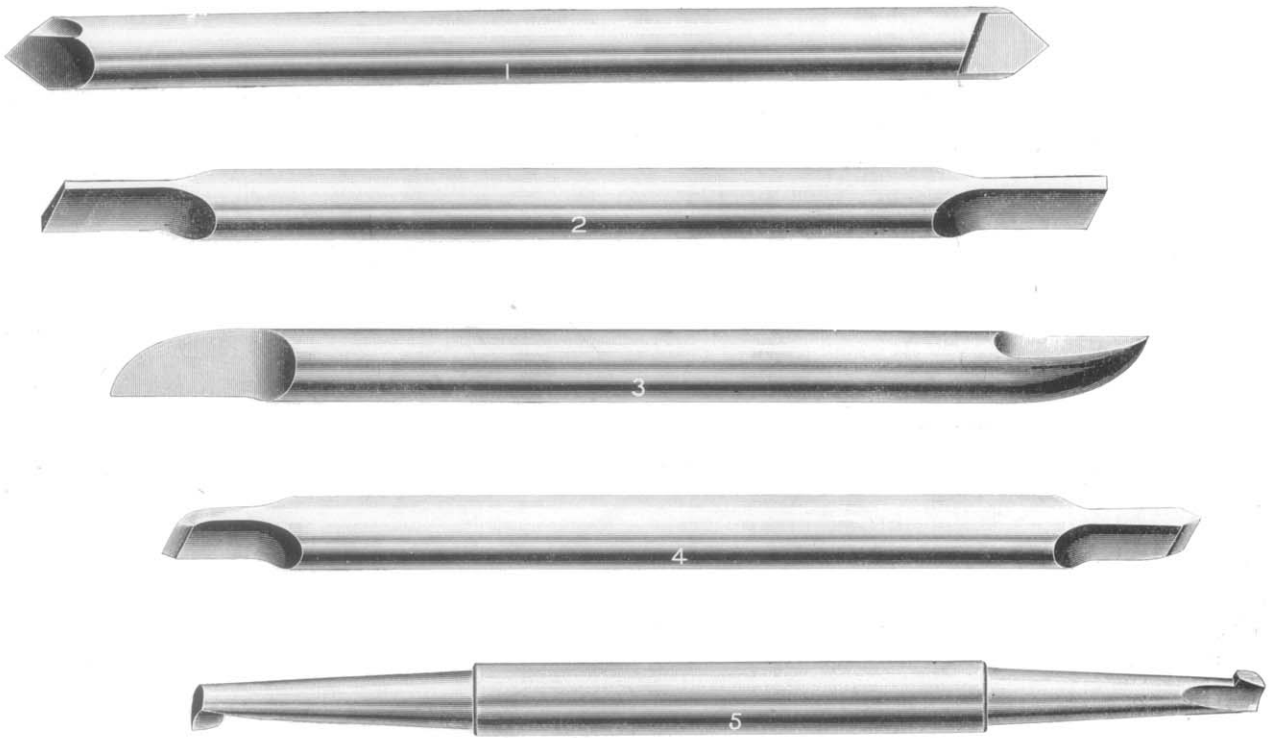
CHUCKING REST.

Price, $2.00.



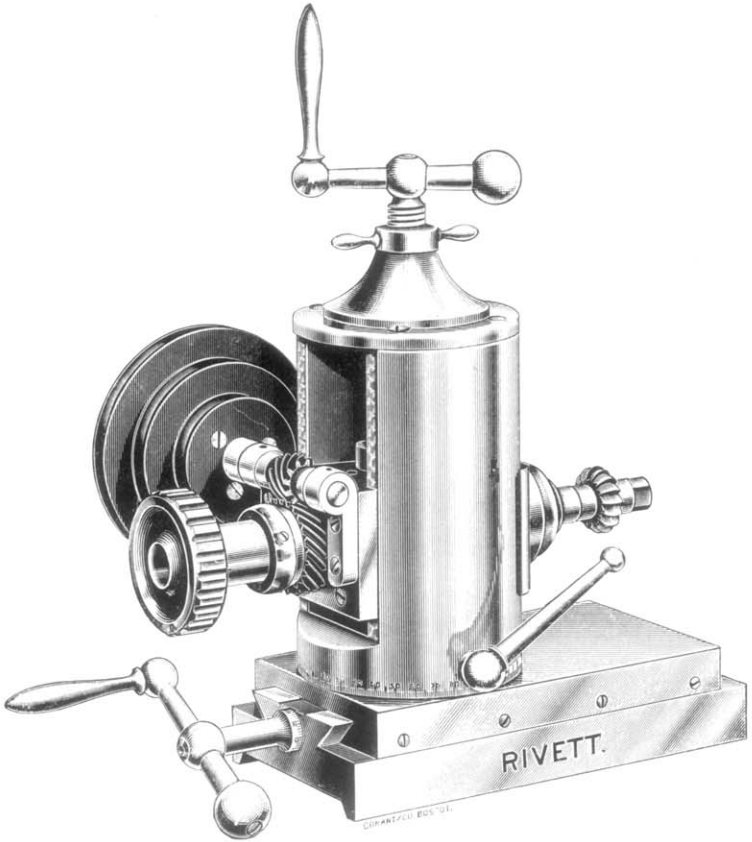
HALF SIZE.

STEADY REST. Price, $10.00.

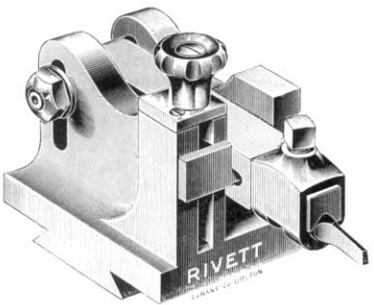


FULL SIZE.

SLIDE REST CUTTERS. Price, 50 cents each.

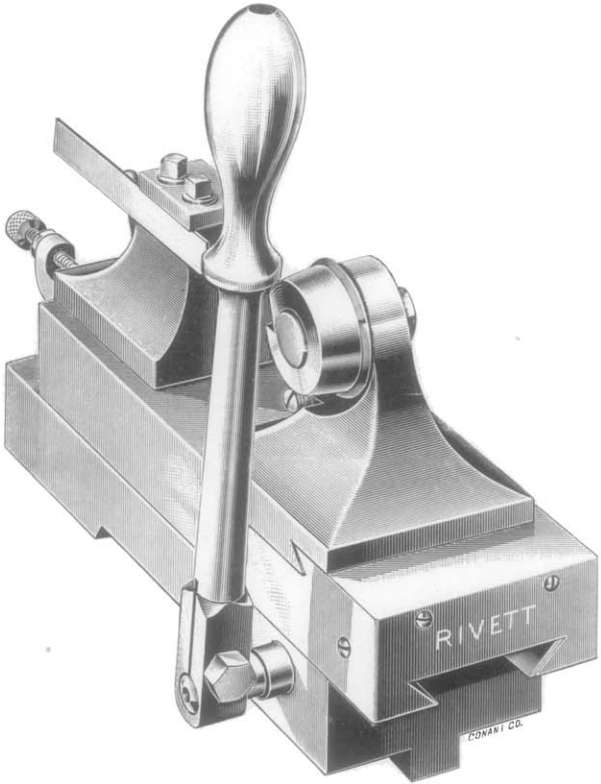


TRAVERSE MILLER. Price, $125.00.



SLOTTING ATTACHMENT.

Price, $25.00.

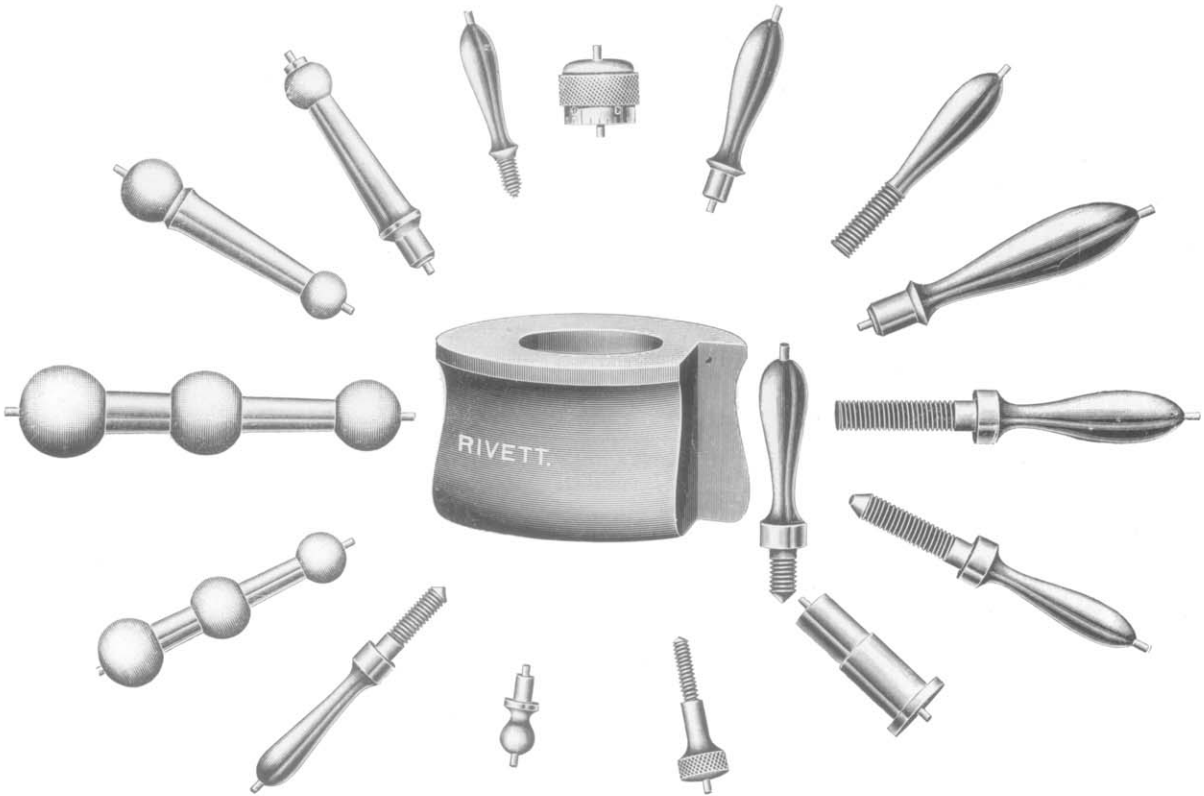


CUTTING-OFF AND FORMING SLIDE. Price, $50.00.

Rivett Forming Slide.

From the manner in which this forming slide is made, the operator is enabled to take a large cut. A cut 1¼ inch wide is easily made as the tool is very stiff.

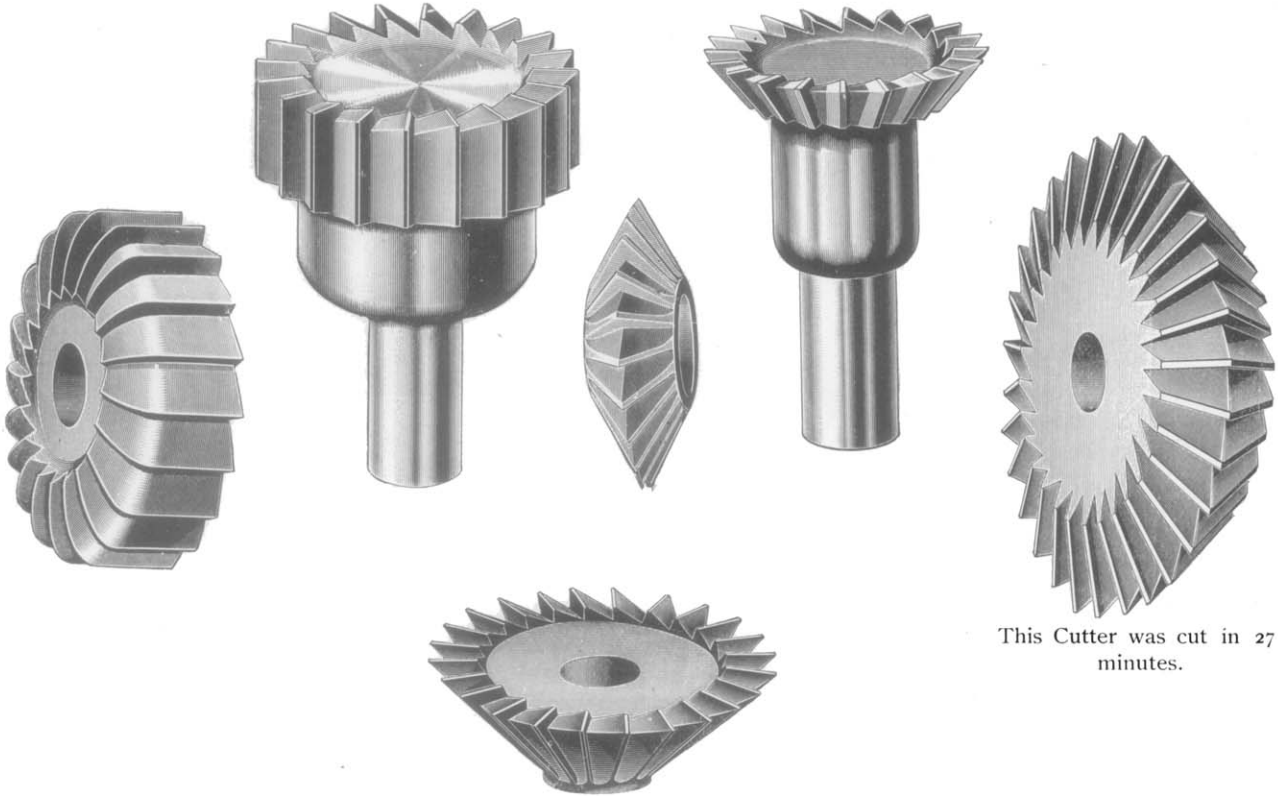
On the opposite page is shown a few samples of the pieces we are constantly making in our factory with this forming slide on our No. 4 lathe.



SAMPLES OF FORMING SLIDE WORK.

Samples of IRREGULAR MILLING CUTTERS made on the Rivett Lathe, using only the Attachment as shown on page 26.

Some toolmakers and manufacturers of cheaper lathes, displeased with our unparalled success, have introduced fanciful ideas in their lathes to offset the true worth of ours, and not satisfied with this, have copied our illustrations of cutters, claiming that they can be made on their lathes. The truth of this claim can be easily proven to the satisfaction of the interested, by requesting that the cutters be made in their presence. We are glad at all times not only to demonstrate what our lathes will do but to take visitors through our shops and show our method of manufacture, and the skill and care necessary to produce a fine tool.



This Cutter was cut in 27 minutes.

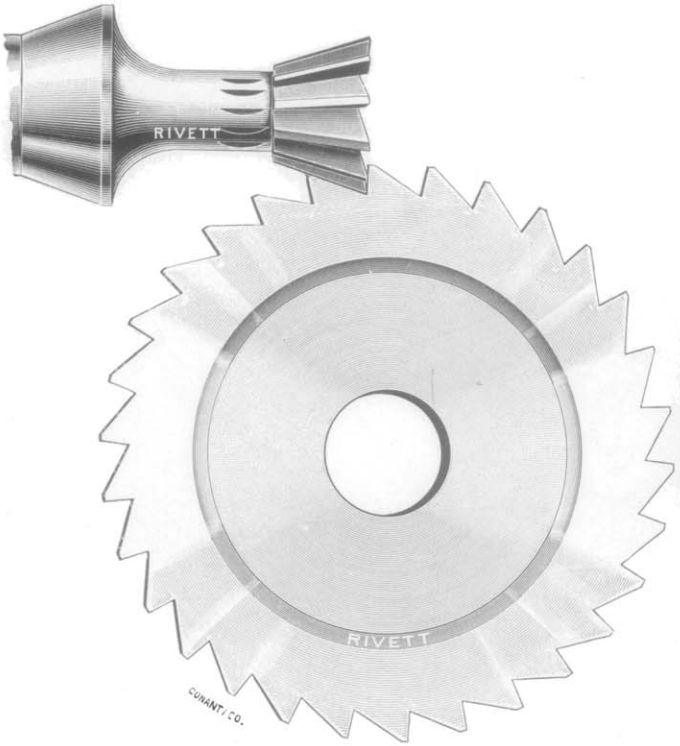
Samples of MILLING CUTTERS, made on the Rivett Lathe to advantage, from 1-8 inch to 2 1-2 inches in diameter.

SAMPLES OF MILLING CUTTERS AS MADE ON THE RIVETT LATHE, which can be produced at a lower cost than any other tool on the market.

SAMPLES OF TAPER MILLS AND REAMERS MADE ON THE RIVETT LATHE.

SAMPLES OF MILLS AND COUNTERBORES MADE ON THE RIVETT LATHE.

Some of the finest Knurls ever made for watch case work, etc., are made on the Rivett Lathe.



Cut in $18\frac{1}{2}$ Minutes.

The cutter shown here was cut in 18½ minutes at the same fair, and we should be pleased to do it at any time in our shop for any one who would like to see the operation. Both cutters were made of Sanderson steel.

At the recent fair of the Massachusetts Charitable Mechanics Association, held in Boston, the work of the Rivett Lathe was admired by hundreds of first class mechanics. The solidity and rigidity of the lathe enabling chips to be taken in turning that many said they could not take with 16-inch lathes in their shops. We can easily take ⅜ inch off 1 inch stock in machinery steel, and we took as much as ½ inch at the fair; and in hard tool steel we took off as much as ¼ inch. The ease with which we do this turning we attribute largely to the construction of our tool holder, as we run the lathe at great speed and still the cutter stands it.

The Rivett Watchmaker's Lathe.

Simple in Construction. Perfect in its Working.

IN introducing the Rivett Watchmakers' Lathe, attachments, etc., to the craft, we feel confident of having an article superior to any other.

The assurance of watchmakers in using the Rivett tools, is the continual improvements we are making, and our great facilities for turning out fine work. Starting from the smallest we are now the largest manufacturers of watch lathes, not only in this country but in the world, and the Rivett lathe takes the front rank in all the finest watch factories both in this country and in Europe.

Mr. Edward Rivett, the inventor, is a skillful watchmaker and machinist, and it is to his genius and perseverance that his fellow craftsmen are indebted for this much needed lathe, whereby a watch repairer, at his store or office, can do as fine a piece of work as though it were sent to a large factory.

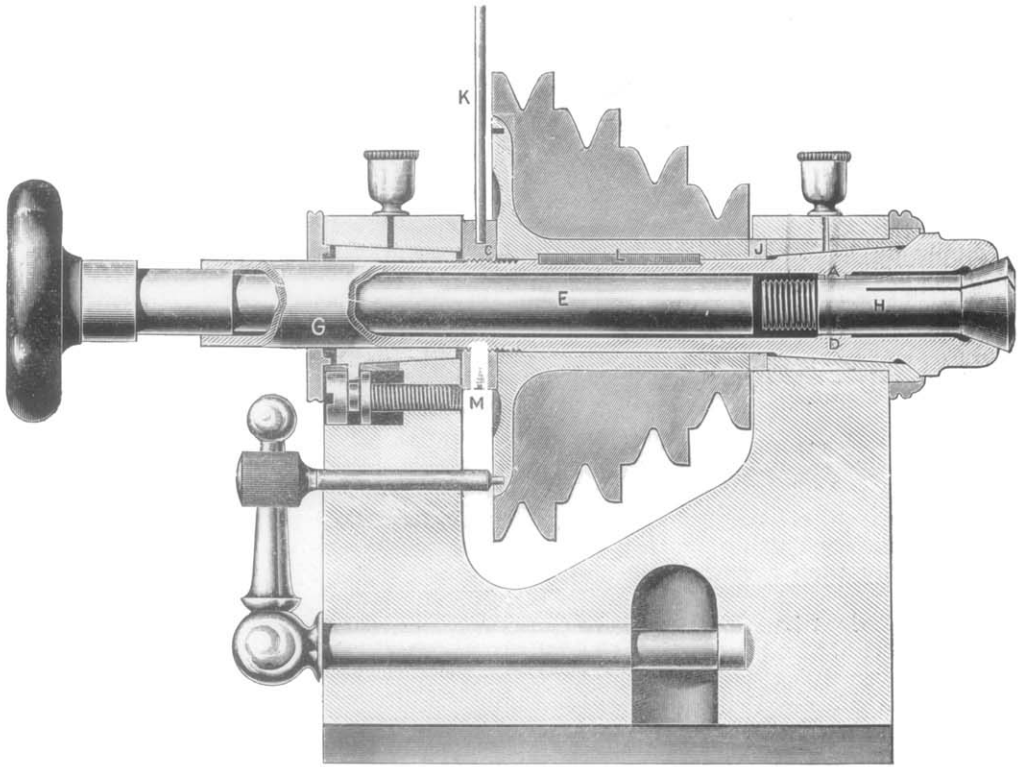
The attachments are simple, and will turn out more and better work than any other lathe in the market.

All of these lathes are of one quality, with hardened spindles and bearings, and are ground by an automatic machine constructed especially for that purpose. The bed is made from the best of steel, being very much superior to a cast iron bed. It also takes a better finish, higher polish, and is free from all imperfections which are found in cast iron.

We guarantee the Rivett Lathe to be the most perfect one ever made, exceeding all others in accuracy, as well as in beauty of form and finish.

Watchmakers contemplating the purchase of a lathe will make a mistake if they do not examine this latest improvement before purchasing.

Any of the following attachments which are not regularly made for the large lathes will be made to order when desired.



RIVETT LATHE No. 2 FOR WATCHMAKERS.

Sectional cut of Headstock showing new construction.

Construction of Headstock of Rivett Lathe.

DESCRIPTION.

A.— Chuck seat pin.

B.— Improved bushing for taking up side-shake in the rear bearing.

This bushing differs from the old style, which was like the front bearing D. It has a taper adjustment same as before, but the contact with the spindle is straight instead of angular. This bushing has the same adjustment that we have on our fast speed grinding machine, and this is the way we make all our lathes.

C.— Binding nut to take up end-shake.

D.— Front bearing.

E.— Drawing-in spindle.

H.— Chuck.

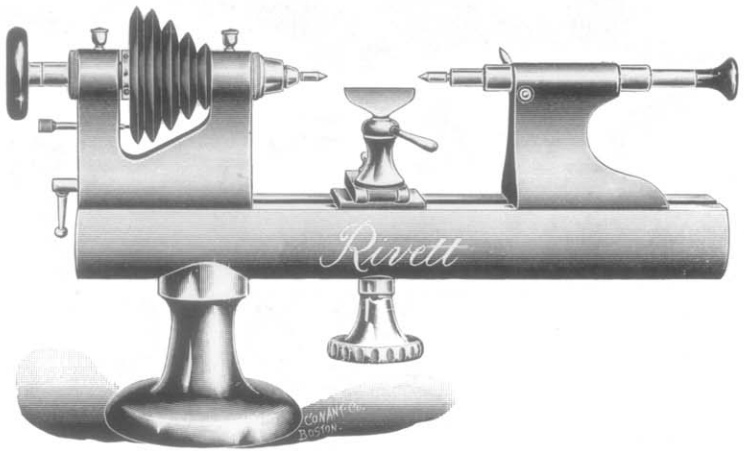
K.— Pin to tighten and loosen nut C.

In taking the head apart unscrew the nut C which forces out the spindle.

L.— Key-way.

This is a new and more expensive style of fastening the cone to the spindle on watchmakers' lathes, which all mechanics will appreciate. The old style was to tighten the cone with a screw which touched the spindle only at one point and the result was to throw out of true. The key-way obviates this difficulty completely.

M.— Set screw to tighten nut C when in place.



RIVETT LATHE No. 2 FOR WATCHMAKERS.

(New Style.) Price, $40.00.

Rivett Lathe No. 2 for Watchmakers.

WE present this new Lathe to the public, sure that it will receive the attention from the craft which is due such a revolution in lathe-making. The new construction, described in the preceding pages, makes a much easier and truer running lathe than the old construction in which the rear bearing was 3 and 45 degrees, exactly like the front bearing, and really a detriment to the lathe; for as all the wear comes on the front bearing the lighter the back bearing is the easier the lathe will run. The most important lathes in our shop have this construction, and we find that they are more sensitive, easier running, and that they last longer. Every Rivett lathe is run before it leaves the shop more revolutions than any watchmaker is likely to run one in all his life, and that without any perceptible wear.

The spindles and bushings are made of the best tool steel, hardened and ground. The cone of hard rubber has four steps, and an iron flange with 60 index holes.

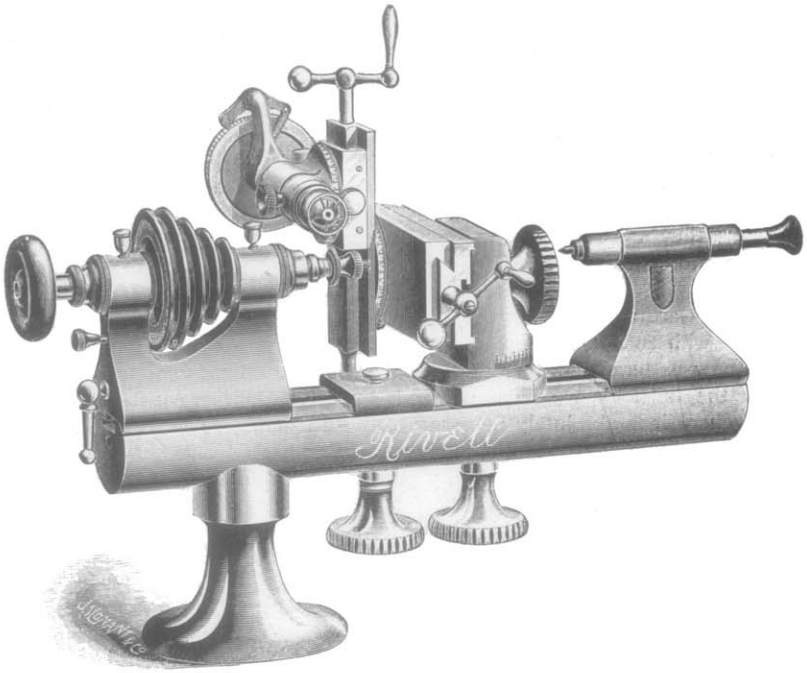
The tailstock is of a new pattern, and though the old style had a handsome curve at the front, it was really a detriment to the rigidity of the tailstock, we have now put in the stock where it is needed to make it firm, and have also put the spindle binder where it is absolutely necessary to hold it stiff. The spindle is hardened and ground.

The bed is of the center guide pattern, as we think that this has advantages over the outside guide. in that the ways are not so exposed to harm from rust caused by perspiration from the hands, nicks and dust, any of which are apt to throw the lathe out of true.

The bed is made from solid bar steel, as this is free from all the imperfections usually found in castings, it takes a better finish, a higher polish, and a better plate of nickle, and will not rust with ordinary care for years.

DIMENSIONS OF LATHE.

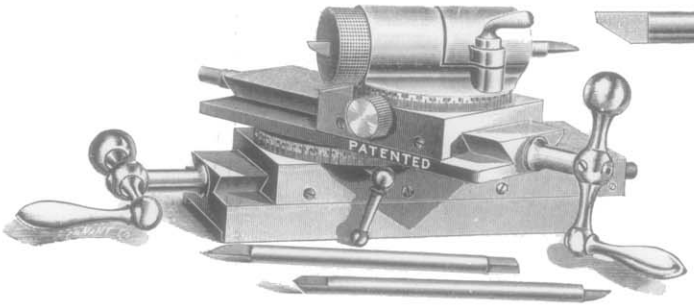
Length of bed,	11 1-2 inches.
Bed in centre,	2 3-16 "
Swing,	4 3-8 "



RIVETT LATHE No. 2 WITH WHEEL CUTTING ATTACHMENT.

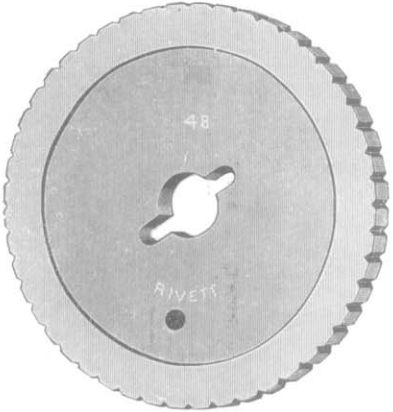
Rivett Lathe No. 2 with Wheel Cutting Attachment.

THE cut on the opposite page shows the lathe with the wheel cutting attachment mounted on the slide rest for cutting wheels. This attachment is built on exactly the same plan as the milling attachment for our larger lathes shown on the preceding pages. It cuts all kinds of wheels and pinions used in key and stem winding watches. Also plate work such as milling recesses, or any milling which is required in any watches. All the milling and cutting on some of the finest chronometers made in America has been done on this attachment. It is considered by all to be the best, as it requires no extra belts or shafting, and can be operated by any one, even by those having but little experience in wheel cutting. Mr. Rivett will guarantee to teach any one to cut a wheel in an hour's time.



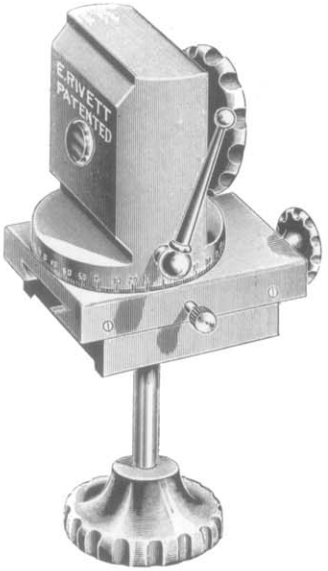
SLIDE REST. Price, $35.00.

TOOL HOLDER.



INDEX.

QUIL.



REVOLVABLE TAILSTOCK.

Price, $40.00.

Rivett Slide Rest and Wheel Cutting Attachment No. 2.

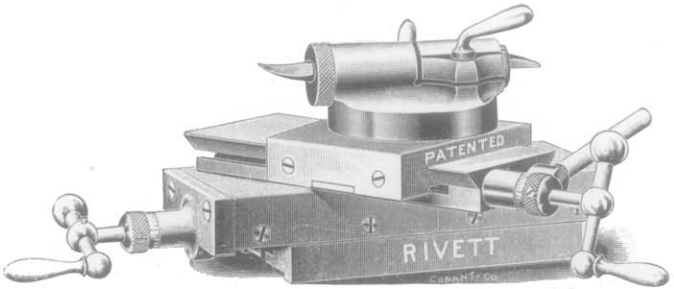
THE Rivett Slide Rest shown on the opposite page has two circular graduated bases, that can be set at any angle, which makes all kinds of turning easy. The binder for binding the graduated base is so constructed that by using the thumb screw with very little power, it makes the base firmer and steadier than any other in the market. The Tool Holder is an eccentric device, easily adjusted to the center, and allowing the cutting tool to be put closer to the work, making it very solid, with no tendency to vibrate or chatter when cutting. The cutting tools are of round wire, which renders it very easy for any watchmaker to make his own cutting tools.

The wheel cutting attachment consists of the quil, index plates and revolvable tailstock. The quil fits into the top of the slide rest in place of the tool-holder, it has a spindle to take the same chucks as the headstock spindle, and chucks that fit the headstock spindle fit the quil spindle. The index plate is kept in place by two lugs milled from the solid spindle, which makes it very firm. Our index plates are the same kind as are used in the watch factories. They are less liable to mistakes, and are more convenient than pin-hole indexes.

The revolvable tailstock fits the bed of the lathe and can be secured to it with the same firmness as the headstock. The upper part is made to fit the slide rest. The tailstock is so graduated that it can be set at any angle required, and there is also a slide with lengthwise feed for very fine adjustment.

When the slide rest is to be used with the wheel cutting attachment the handle of the bottom slide is to be changed to the opposite end before mounting it on the revolvable tailstock.

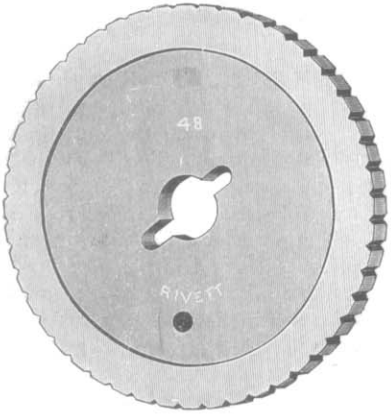
No extra belting, pulleys or countershafts are needed with our wheel cutting attachment, and we claim that it is without exception the best attachment there is for cutting wheels.



"RIVETT SPECIAL" SLIDE REST. Price, ~~$25.00.~~ 2.00

"RIVETT SPECIAL" WHEEL CUTTING ATTACHMENT.
Price, $25.00.

INDEX PALL.



INDEX.

"Rivett Special."

Slide Rest and Wheel-Cutting Attachment.

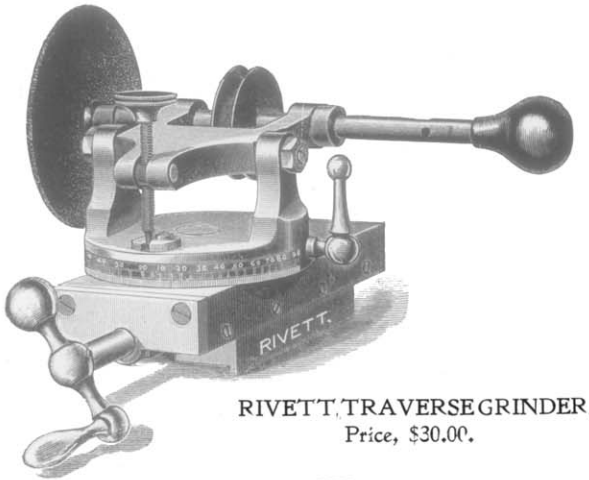
THE "Rivett" Slide Rest needs no introduction, as it is well known to the craft as the best of all the "Rivett" attachments, and has done more than any other attachments to bring the "Rivett" tools to their present high standard.

In response to a large demand for a good low priced Slide Rest, we tender the "Rivett Special" to the trade. This Slide Rest is made under the same patents as the "Rivett," but is a little smaller in size. For turning, and all regular slide rest work, it is just as good as the higher priced one, and will do heavier work, without chattering, than any other American or imported make, owing to the rigidity of its build.

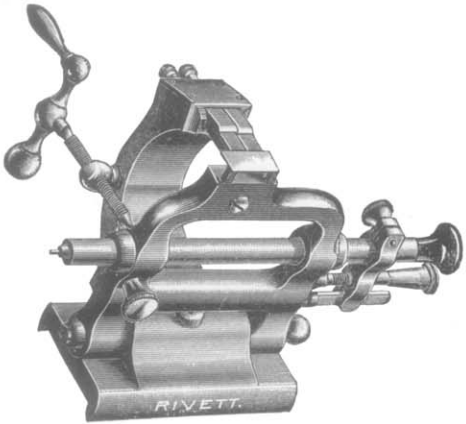
The Slide Rest is the most useful of all the attachments to a lathe, as it can take the place of the Jeweling Rest in a large measure, in addition to fulfilling its own special duties.

The "Rivett" Pivot Polisher fits this Slide Rest.

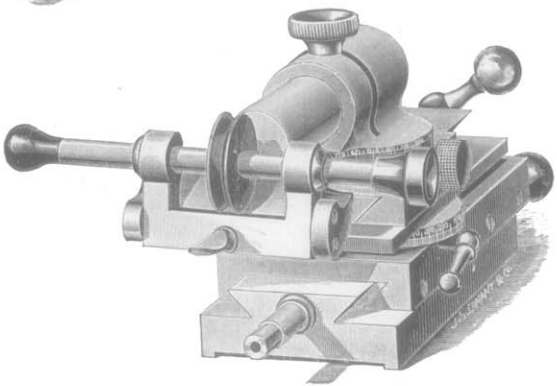
The Wheel-Cutting Attachment shown on the opposite page is similar to what other makers use. It is a very good attachment for a man who has not much of this kind of work to do, and a very useful article for a low price. This is the same style of attachment on which is made some of the finest watches in this country.



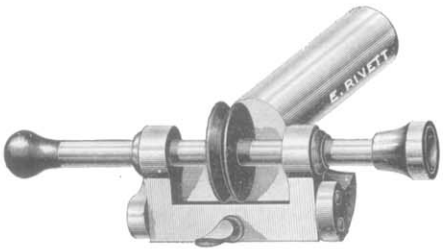
RIVETT TRAVERSE GRINDER.
Price, $30.00.



RIVETT JEWELING CALIPER REST.
Price, $35.00.



RIVETT SLIDE REST WITH PIVOT POLISHER.



RIVETT PIVOT POLISHER.
Price, $15 00.

Rivett Traverse Grinder.

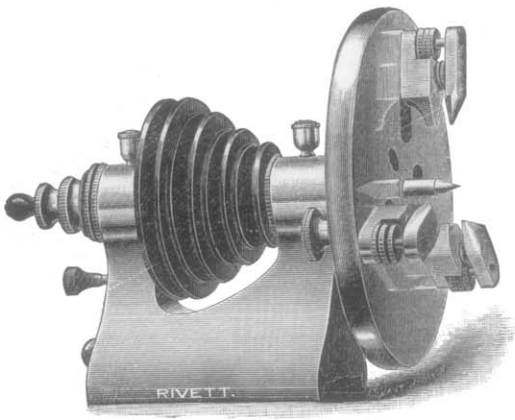
THIS Grinder goes on the shoe same as the slide rest. The slide will move one and one-half inches. The circular base is graduated so as to set the spindle at any desired angle. The traverse spindle has an adjustable screw to raise above or lower below the center, which is needed for a great many different kinds of work. This grinder will be found indispensable for grinding cutters, reamers, counter-sinks, squaring-up barrel arbors after hardening, or any hardened steel tool. In the hand of an ingenious workman it will be found exceedingly useful.

Rivett Jeweling Caliper Rest.

The Jeweling Rest shown on the opposite page is for setting jewels in plates or settings, and is useful for counter-sinking screw-heads and recessing plates, and for all kinds of fittings, such as opening wheels for pinions, or bushings, turning barrel heads, etc. The cross-feed screw is so fixed on a swivel that it will swing out of the way when not in use.

Rivett Pivot Polisher.

This attachment goes on the Slide Rest in the quil holder. The two graduated bases on the slide rest, and the different angles at which the Polisher can be set, gives more adjustment than any other tool made for the same purpose. We have a movement whieh is absolutely necessary for snailing a plate, or stem-winding wheel, etc., which no other Pivot Polisher has. Though it is a low-priced attachment, we guarantee it will do more and better work, and is more easily adjusted, than those costing three times the price of ours.



UNIVERSAL HEAD. Price, $35.00.

IMPROVED PATENT JAW.

UNIVERSAL FACE PLATE.
Price, $16.00.

Rivett Universal Head and Face Plate.

IN the Rivett Universal Head the spindle is made the same as our headstock spindle, of the very best tool steel, hardened and ground by a machine made especially for this work. We believe we are the only persons who make the Universal Head spindle and bushings hardened and ground. Our pump center is fitted with a light spring. The face-plate has three peep-holes, tapering toward the back, which makes it much easier for the watchmaker to see around his pump center, and is considered by all who have used it to be a great improvement over all others.

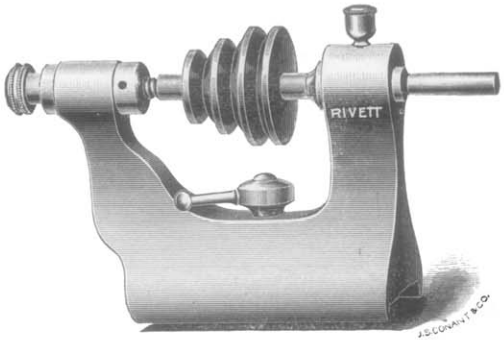
The Rivett Universal Plates are mounted on hardened steel chucks, and the utmost care taken in their manufacture.

We have three styles of plates : Solid Nickle, Aluminum-Bronze, and Cast Iron nickle plated, like all the rest.

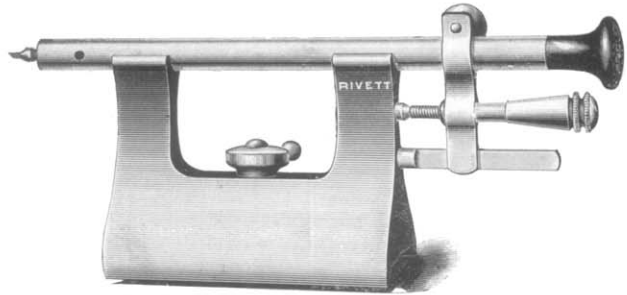
The Nickle and Aluminum-Bronze plates are not plated ; with them there is no peeling, no rust ; they are stronger than cast iron, have a nice appearance, and are always true.

The *first* improvement on our Patent Jaw is that we do away with the spiral spring, the thumb screw being grooved and running in a T slot in the sleeve of the lower jaw, which throws it in and out without any trouble.

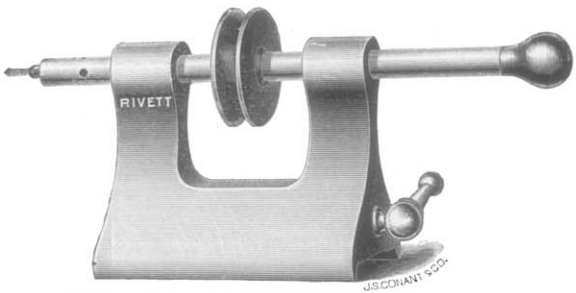
The *second* improvment is that we can bind our lower jaw to any position on the plate, with the thumb nut in the center of the jaw, which holds it firm and steady. This improvement will be found a great advantage when it is necessary to replace the watch-plate a number of times, as frequently has to be done.



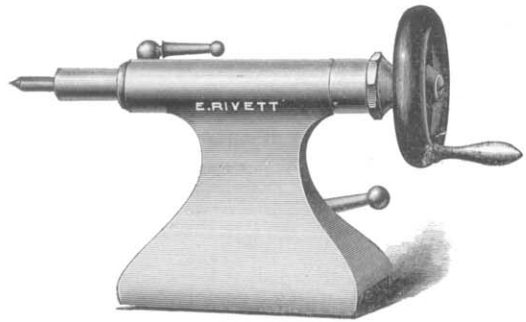
RIVETT JEWELING HEAD. Price, $18.00.



RIVETT HALF-OPEN TAILSTOCK. Price, $13.00.



RIVETT TRAVERSE SPINDLE TAILSTOCK.
Price, $12.00.



RIVETT SCREW TAILSTOCK. Price, $15.00.

Rivett Jeweling Head.

THIS head is similar to those used in watch factories for manufacturing jewels, and finishing pivots on the balance staff. Great speed is necessary for the manufacture of jewels. This tool is so constructed that it develops a very high rate of speed, with but very little outlay of power.

Rivett Half-Open Tailstock.

The bearings of this Tailstock are cut away so that the spindles can be laid in, instead of passing through the holes; this is convenient when a number of spindles are to be used for drilling, champfering, tapping, etc.

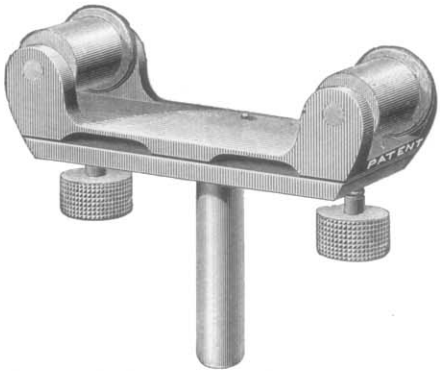
Very handy for watchmakers who manufacture some specialties. Works very rapidly.

Rivett Traverse Spindle Tailstock.

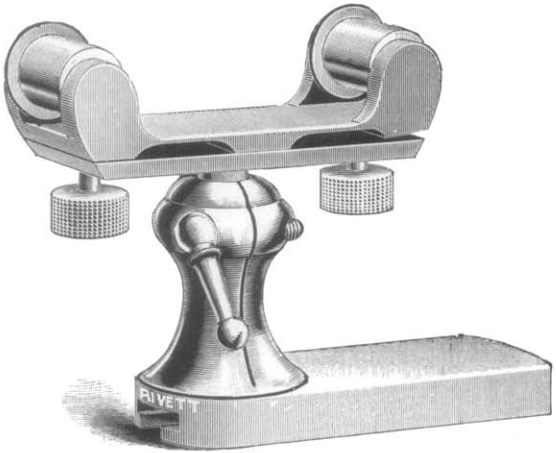
This Tailstock is very convenient for straight drilling, and where any one has a great deal of drilling to do it will prove invaluable.

Rivett Screw Tailstock.

The Screw Tailstock is used for heavy drilling and turning, the spindle being moved by a screw.



RIVETT FILING REST. Price, $8.00.



RIVETT FILING REST IN POSITION FOR USE.

TIPOVER T-REST. Price, $3.00.

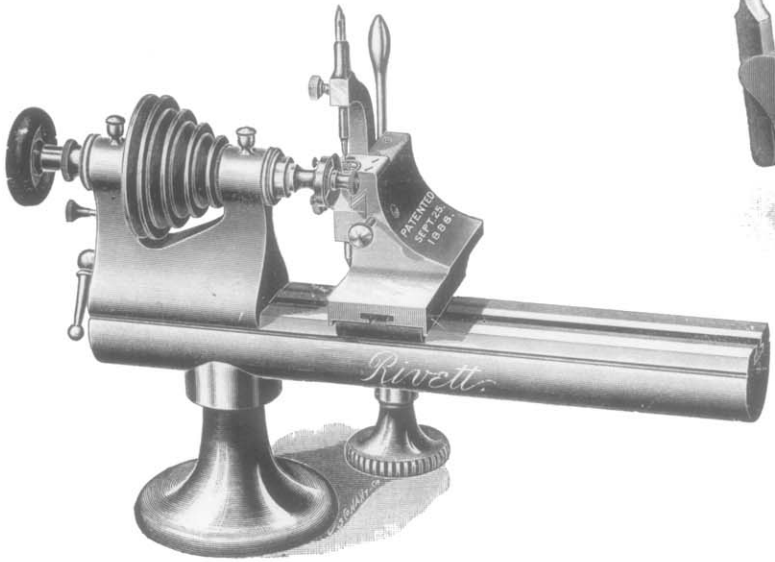
Rivett Filing Rest.

THE Rivett Filing Rest for squaring barrel arbors, etc., is held in the same manner as the T in Hand Rest. The rollers are made of the best tool steel, hardened and ground, running in small center, causing the rollers to revolve freely under the file. The adjustment is more complete than any other rest in the market, being adjusted by a thumbscrew at each end of the rest. By lowering the front roller by means of the thumbscrew underneath, glazing will be avoided.

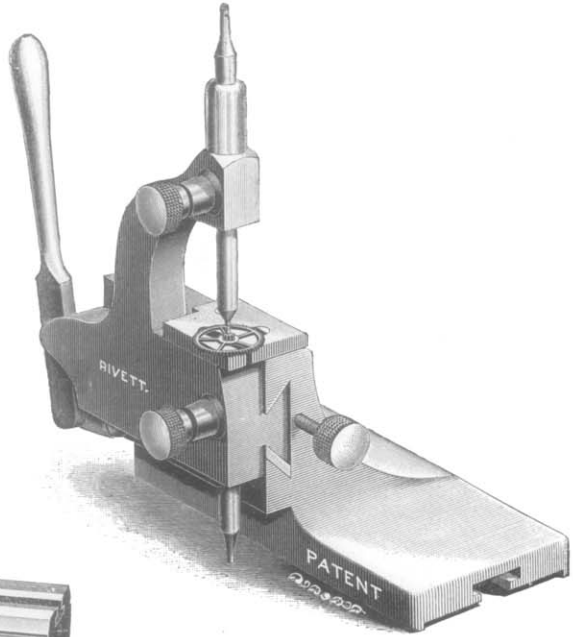
Rivett Tip-over T-Rest.

The Rivett Tip-over T-Rest still holds its place at the head of all the numerous Tip-over T-Rests which closely followed its introduction to the trade. The ease with which it can be adjusted, the wide swing when tipped over,—a swing of 180 degrees,—and the facility with which it can be cleaned, make it a general favorite. A single wipe of the finger is sufficient to dislodge any chips that may fall upon it, as there are no corners or nicks in which they could catch, and thus make trouble. The Tip-over T-Rest is a great convenience, nay, even a necessity, when the work has to be tested or guaged often.

RIVETT SCREW GUIDE CHUCK. Price, $4.00.



RIVETT ROUNDING-UP TOOL, in position for use.

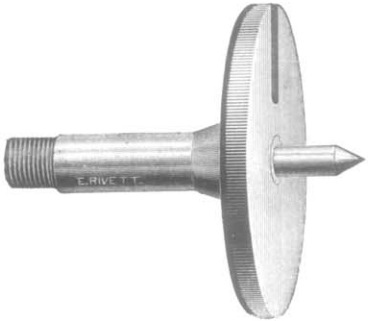


RIVETT ROUNDING-UP TOOL.
Price, $25.00.

Rivett Rounding-Up Tool.

THE cuts on the opposite page show the Rivett Rounding-Up Tool, with a wheel set in the tool to be rounded up. It goes on the shoe same as the slide rest. The thumbscrew on the end is to adjust the feed. The two centers are kept in place by two thumbscrews on the side. The table has a slot, which allows all size wheels to be rounded up without the use of collets. The groove on the front of the table is the center mark ; and by placing it to the center of the cutter it is then ready for rounding up the wheel. One side of the table is screwed solid to the base, and the other supported by the slide, which makes it perfectly solid. The table support is made of tempered steel, and highly polished which will allow the wheel to be rounded up without defacing or scratching it.

It will be seen by the cut that it can be adjusted for work in less than a minute's time, and no extra belts or pulleys are used. It is most convenient and simple in its use. Watchmakers cannot afford to be without it.



CHUCK WITH FACE PLATE.
Price, $3.00 each.

CHUCK WITH JEWEL CENTER.
Price, $4.00 each.

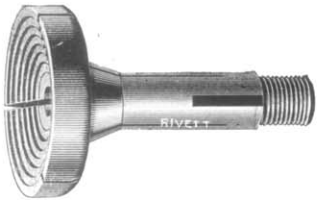
MALE CENTER. Price, 25 cents each.

3-4 INCH CEMENT CHUCK.
Price, $2.50 per dozen.

1-2 INCH CEMENT CHUCK.
Price, $1.50 per dozen.

DOG WITH BLANK STAFF.
Price, 75 cents each.

CENTER PUNCH. Price, 15 cents each.



WHEEL CHUCK.
Price, $1.00 each.

WIRE CHUCK.
Price, $1.00 each.

SOFT STEEL JEWELING CHUCK. Pirce 50 cents each.

FEMALE CENTER.
Priec. 25 cents each.

PINVISE, to fit handle or tailstock spindle. Price, $1.25 each.

RIVETT CHUCK BOX AND COVER. Price, $1.00.

TABLE

Rivett Chucks and Equivalents.

Rivett.	Stubs.	Metric.	Decimals of Inch
			BY .001
..	..	3	.0118
80	80	.	.013
79	79	..	.014
78	78	..	.015
..	..	4	.0157
77	77	.	.016
76	.	..	.017
75	76	..	.018
74	..	..	.019
..	..	5	.0197
73	75	.	.02
72	..	..	.021
71	74	.	.022
70	73	..	.023
..	.	6	.0236
69	72	..	024
68	..	..	.025
67	71	..	.026
66	70	..	.027
..	..	7	.0276
65	69	..	029
..	68	.	.03
64	67	..	.031
..	..	8	0315
..	66	..	.032
63	65	..	.033
62	64	..	.035
..	..	9	.0354
..	63	.	.036
61	62	..	.037
..	61	..	.038
60	60	..	.039
..	..	10	.0394
..	59	..	.04
59	58	.	041
..	57	..	.042
58	..	..	.043
..		11	.0433
57	56	.	.045
56	..	12	047
55	..	..	.049
..	55	..	.05

Rivett.	Stubs.	Metric.	Decimals of Inch.
			BY .002
..	..	13	.0511
54	..	..	.052
53	54	..	.055
..	..	14	.0551
52	53	..	.058
..	..	15	.059
51	..	..	.061
..	52	16	.063
50	..	..	.064
.	51	..	.066
49	..	17	.067
.	50	..	.069
48	..	..	.07
..	..	18	.0709
..	49	..	.072
47	..	..	.073
..	..	19	.0748
..	48	..	.075
46	..	..	.076
..	47	..	.077
..	..	20	.0787
45	46	..	.079
..	45	..	.081
44	..	21	.082
43	44	..	.085
..	..	22	.086
42	43	..	.088
..	..	23	.0906
41	..	..	.091
..	42	..	.092
40	..	24	.094
..	41	..	.095
39	40	..	.097
..	..	25	.098
..	39	..	.099
38	..	.	.1
..	38	..	.101
..	..	26	.1024
37	37	..	.103
36	36	27	.106
..	35	..	.108
37	..	..	.109

Rivett.	Stubs.	Metric.	Decimals of Inch.
			BY .003
..	34	28	.11
34	33	..	.112
..	..	29	.114
33	32	..	.115
32	..	30	.118
..	31	..	.12
31	..	.	.121
..	..	31	.122
30	..	..	.124
..	..	32	.126
29	30	.	.127
..	..	33	.1299
28	.	.	.13
27	..	..	.133
..	..	34	.1339
.	29		.134
26	..	..	.136
..	..	35	.1378
25	28	..	.139
..	..	36	.1417
24	..	..	.142
..	27	..	.143
23	..	37	.145
.	26	..	.146
22	25	..	.148
..	..	38	.1496
21	24	..	151
..	23	.	.153
..	..	39	.1535
20	..	..	.154
..	22	..	.155
19	21	..	.157
..	..	40	.1575
18	..	..	.16
..	20	..	.161
.	..	41	.1614
17	..	..	.163
..	19	..	.164
..	..	42	.1654
16	..	..	.166
..	18	..	.168
15	..	..	.160

Rivett.	Stubs.	Metric.	Decimals of Inch.
			BY .003
..	..	43	.1693
14	17	..	.172
..	..	44	.173
13	16	..	.175
..	..	45	.177
12	15	..	.178
..	14	..	.18
11	..	..	.181
..	..	46	.1811
..	13	..	.182
10	..	..	.184
..	12	47	.185
9	11	..	.188
..	..	48	.189
..	10	..	.191
8	..	..	.192
..	..	49	.1929
..	9	..	.194
7	..	..	.196
..	..	50	.1969
..	8	..	.197
..	7	..	.199
6	..	..	.2
..	6	51	.201
5	5	..	.204
..	..	52	.2047
..	4	..	.207
4	..	..	.208
..	..	53	.209
3	3	..	.212
..	..	54	.2126
..	..	55	.2165
2	2	..	.219
..	..	56	.2205
..	..	57	.2244
1	1	..	.227
..	..	58	.228
..	..	59	.2322
..	..	60	.2362

BY .004 BY .007 BY .008

Use of Chuck Table.

The Rivett Chucks are graduated on .001 of an inch, so that we can make a more even graduation in the sizes than is possible on the "Stubs" gauge, as every maker of "Stubs" wire varies the size a little, and also that we can put more chucks on the smaller sizes where they are most needed.

We believe no wire-maker pretends to draw wire closer than .0005, and when watchmakers use wire, they only use it for roughing out, and not as finished work, so that the exact size does not matter so very much. Manufacturers make and dealers keep wire drawn to the "Stub" sizes or to the decimals of an inch, and though other chuck makers say, "It would be better if watchmakers ordered their wire by the Metric System," it would not be so, as the dealers do not have the wire made that way and know nothing about the metric sizes.

Below is a cut of the "Stubs" gauge which will assist watchmakers in ordering Chucks and wire, as they can find what size they want and then by the table opposite find its equivalent in the "Rivett" Chucks, decimals of an inch, or in the Metric System.

Example.— If you want wire to fit a No. 65 chuck, order No. 69 "Stubs" steel, or steel .029 inch.

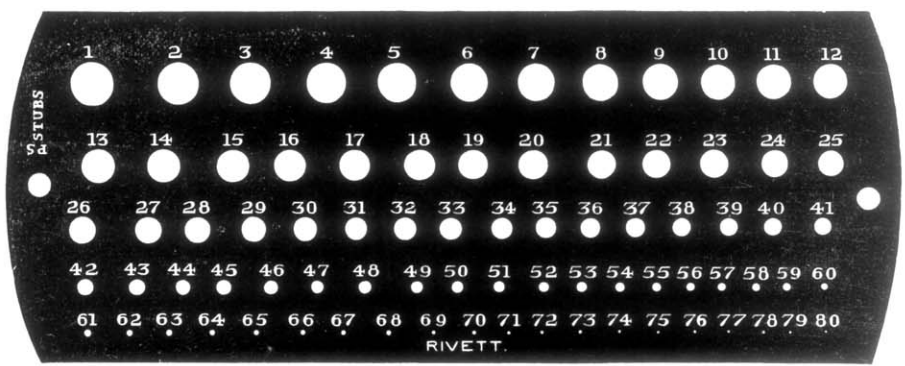


Table of Jeweling Chucks.

NAME OF JEWEL.	18s.	16s.	6s.	0s.
Elgin	3	7	7	10
" No. 72 Train	..	1	..	..
" " 72 Center	..	3	..	..
" " 91 "	..	4	..	..
" " 91 Train	..	5	..	..
" " 122 Center Upper	..	..	3	..
" " 122 Center Lower	..	..	9	..
" " 122 Train	..	..	3	..
" " 112 Upper Center	..	..	..	8
" " 112 Lower Center	..	..	..	10
" " 112 Train	..	..	..	7
" Largest, C. & F., End Stone	4	7	9	10
" Smallest, C. & F., End Stone	4	7	9	10
Waltham	5	5	..	..
" Center	..	2	5	5
" Balance	..	..	10	10
" Train	..	..	8	8
" O. M.	6	..	..	..
Walthams, 8s. old	7	..	..	..
" 6s. "	9	..	..	..
Rockford, 3 and 4	..	..	7	..
" Scape and Pallet	3	..	7	..
" Balance	6	..	9	..
" Model	5	..	5	..
Hampden, Upper Plate, old	3	5	9	..
" Upper Plate, new	5	..	..	..
" Lower Plate, new	5	5	9	..
" Balance, plain spg.	5	5	10	..
" Balance, Breguet	8	8	..	..
Illinois, Plate, lower	4	7	14, 8, 6,	
" " top	1	7	4, all	
" C. & F.	4	9	same size	
" Breguet Balance	7	..	..	..
Hamilton. Bar	2	..	7	..
" C. & F.	6	..	9	..

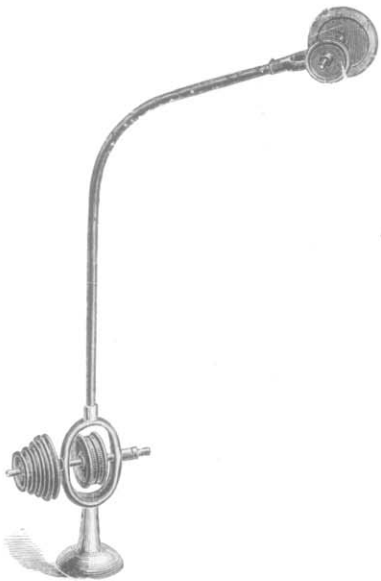
NAME OF JEWEL.	18s.	16s.	6s.	0s.
Columbus, Bar-holes	2	..	5	..
" C. & F.	5	..	9	..
N. Y. Standard, Train	3	6	8	..
" " C. & F.	6	6	9	..
" " End Stone	6	6	9	..
E. Howard,		14s.		
" N. & L., Lower Plate	4	..	..	..
" " Balance	8	..	..	..
" Upper Plate	5	..	..	..
" Balance Plate	..	9	..	..
" Lower Plate	..	8	..	..
Seth Thomas, Upper Train	4	..	8	..
" " ¾ Balance	5	..	8	..
" " Full Plate	7	..	..	..
" " " " Center N. S.	2	..	..	..
" " Lower Train	4	..	4	..
" " ¾ Plate Center	6	..	..	..
" " Full Plate Center	3	..	..	..
Trenton, Upper	6	..	..	..
" Lower	6	..	9	..

	Ser. W	Ser J	Ser. K	Ser. L	Ser. R.
Waterbury Top Balance	8	4	3	3	4
" Lower Balance	8	3	3	4	3
" Cap	8	4	3	4	3
" End Stone	..	9	..	..	..
" Lower Escape	3	..	4	..	4
" Top Escape	8	..	8	..	8
				6s.	
" Top Balance	..	..	..	8	..
" Lower Balance	..	..	..	8	..
" Top Escape	..	..	..	8	..
" Lower Escape	..	..	..	3	..
" Cap	..	..	..	8	..

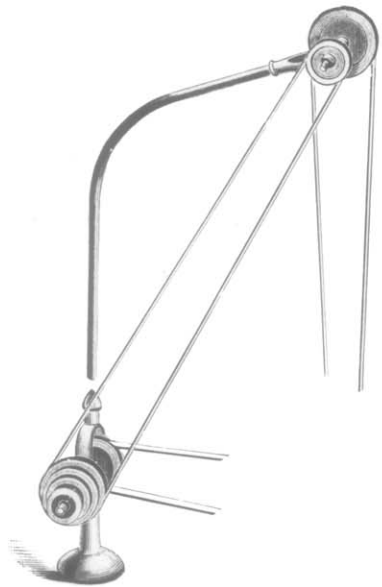
Rivett Jeweling Chucks.

THE Rivett Jeweling Chucks are of the same style as are used in the watch factories for holding and setting jewels. A full set comprises ten chucks, which have sufficient range in size to cover all the various sizes of watch jewels. These chucks are a great improvement over the old way of stepping the hardened wire chuck, for being soft, the watchmaker can adjust the step to suit himself, either turning it deeper or larger to suit any particular work he may have on hand. In the old way no step was true with the hole in the chuck, as the hole was ground, while nobody pretended to grind the step, and if they had it would have been almost impossible to get a square corner.

On the opposite page we give a table showing what chuck is to be used for any jewel, the figures in the columns under the size of the movement and opposite the name of the jewel show the size of the jeweling chuck to be used.

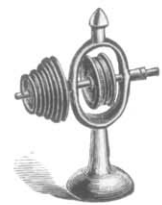


RIVETT COUNTERSHAFT,
with Overhead Attachment.
Price, $14.00.



RIVETT COUNTERSHAFT,
Showing Method of Belting.

OVERHEAD ATTACHMENT.
Price, $6.00.



Rivett Countershaft.
Price, $8.00.

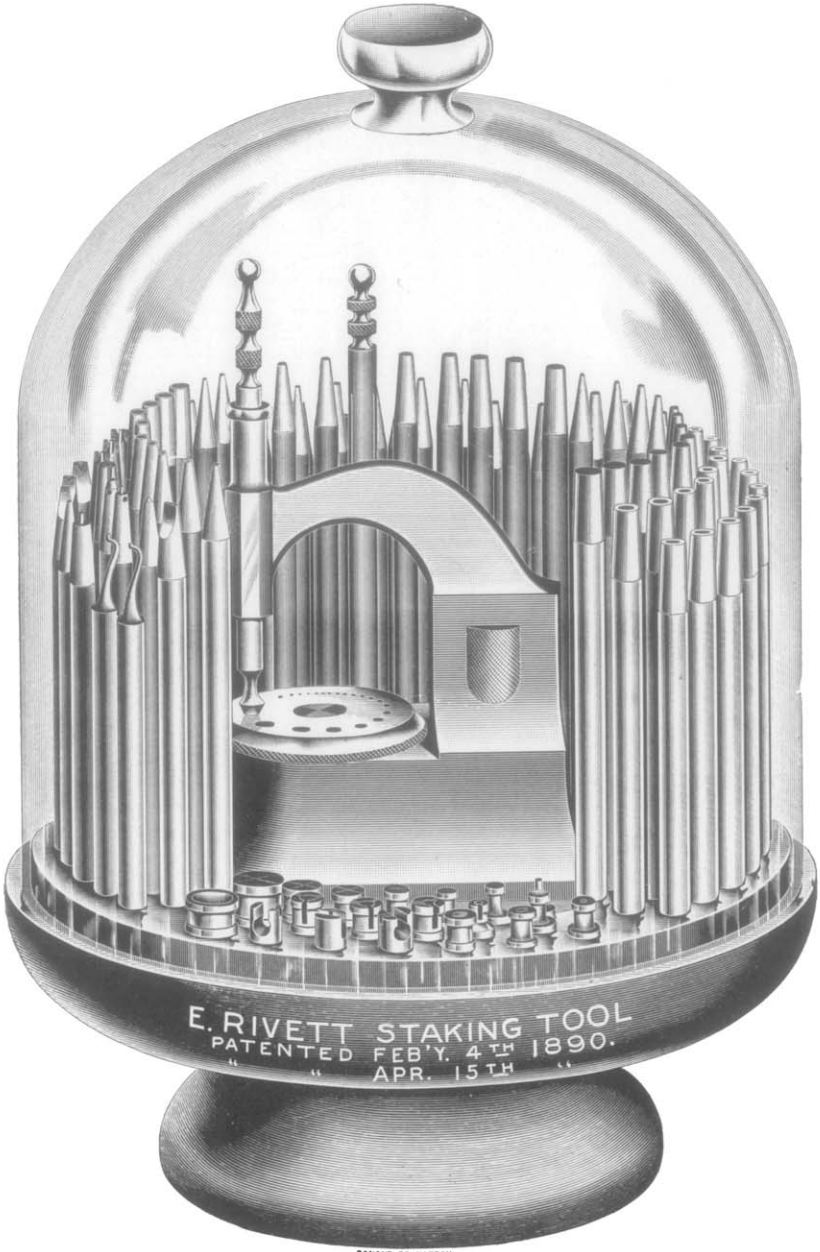
Rivett Single Stand
Countershaft.
Price, $5.00.

Rivett Countershafts.

THE Rivett Countershaft is simpler than any other and with the overhead attachment more complete. The overhead attachment fits into a taper hole in the upper part of the countershaft, as shown on the opposite page, and when not in use the hole is covered by an ornamental cap. In polishing pivots the short belts that are used with other countershafts are very annoying, they run direct from the countershaft at the back of the bench to the idler pulleys on the pivot polisher, but it is impossible for them to allow of the necessary twisting to set the polisher at any angle, and the use of idler pulleys is really a deteriment to the smooth running of the pivot polisher.

In the Rivett Overhead Attachment, the belt is carried direct from above to the polisher spindle, thus allowing all the twisting that is necessary to put the polisher at any angle and insuring a perfectly smooth running belt.

The Single Stand Countershaft is made on the same plan, except that it has no means for holding the overhead attachment. For watchmakers who do not use the pivot polisher or other traverse attachments it will answer the same purpose as the other and the price is lower.



RIVETT STAKING TOOL.

100-Punch Staking Tool, Price, $22.50. 54-Punch Staking Tool, Price, $15.00.

The Rivett Patent Staking Tool

Is the Leader and Challenges the World.

WE were the pioneers in getting out a hundred punch Staking Tool. The rest follow and are only imitations. We are also the only ones to get out a book explaining the use of the tool and the punches, and we have had several letters from watchmakers not accustomed to the use of a Staking Tool, saying that the book is worth as much to them as the tool. Watchmakers are invited to examine this tool in comparison with all others in the market. It is the best that human ingenuity, guided by the highest mechanical training, and a practical experience of over twenty years could possibly produce.

Improved machinery is constantly being added, and as soon as a lathe head is worn we replace it with a new one, so that the tools for manufacturing are always up to the standard.

FRAME is of solid cast iron, best quality, and symmetrically shaped, is so designed that it will receive a blow on stake with absolutely no vibration. There are two patents on this tool; one on the design, which is remarkable for its strength, and the other on the binder for fastening the die plate.

DIE is 1½ inches in diameter, larger and more holes than any other on the market; there being twenty holes ranging from No. 17 to No. 80 on the Stubs' Wire Gauge. The dies are hardened in a special solution which makes them very strong and hard, and finished with a mirror polish.

PUNCHES and STUMPS. The steel for our punches and stumps is imported, and especially made for us with the least possible variation in size. The punches and stumps are all drilled by hand and hardened one by one, the heat being arranged so that they are all hardened just alike. Every punch is stamped "Rivett."

The tool is full nickel plated, and mounted on a solid mahogany stand with glass shade.

Price, $10.00.

Rivett Foot Wheel.

The Rivett Foot Wheel was designed for use either in the dentist's office or at the watchmaker's bench.

Both the wheel and the frame are made of cast iron, finely finished and painted.

The wheel is carefully set in babbitt bearings, and is absolutely free from looseness and side play.

It is an ornament rather than a disfigurement to the office, for its outline and design are unexcelled.

It is a very easy running wheel, and very little effort is required in driving it.

Its durability is unsurpassed, and it gives satisfaction in every case.

Weight about 80 pounds.

Terms.

Prices are all F. O. B., Boston.

OUR terms are strictly cash, and in plainly stating this we desire simply to protect our customers as well as ourselves, for if we have no bad debt account to make good we can list our tools at bottom prices. With loose accounts and consequent loss to a greater or less degree, the solvent customer must in any business pay an increased margin to cover such loss, and this can only be avoided by firmly adhering to the rule that customers who cannot satisfy us as to their liability must accompany their order with payment for the same.

All orders are shipped well boxed and oiled, and in perfect condition.

We will not be responsible for goods after they have left our shops.

Shipments may be insured at a low cost; we will attend to this upon the advice from the purchaser to that effect. Goods are sent C. O. D. only when an amount sufficient to cover transportation both ways is sent with the order, which amount will be deducted from the bill. No charge is made for boxing.

All orders over twenty pounds are shipped by freight, unless otherwsie directed. Shipments under this weight are made by express or mail.

Packages not exceeding four pounds in weight may be sent by mail.

In ordering, please state fully and at length just what is desired, giving figures of size and all possible information. Order as long before hand as you can, for we have never yet been able to keep ahead of the demand, and have but a small stock on hand, in spite of our steady increase of plant and skilled labor.

We will not send you a half finished tool, and as all of our manufacture requires time and care to make, we therefore ask you to give us as much of this time as possible. Help us to please you and we will most carefully endeavor to do so.

Price List for 8-inch Precision Lathe and Attachments.

INDEX		
Page 16 to 23.	Eight Inch Engineers' Precision Lathe with Automatic Cross Feed Compound Slide Rest, Face Plate and Closer for Step Chucks	$450 00
" 38.	Automatic Chuck Closer	25 00
" 42.	Cutter Milling Attachment	75 00
" 28.	Taper Attachment	75 00
" 42.	Grinding and Lapping Attachment	25 00
" 32.	Turret Attachment	125 00
" 32, 56.	Cutting Off Slide for Screw Machine	50 00
" 20, 55.	Traverse Milling Attachment	125 00
" —.	Grinding Attachment for Traverse Miller	25 00
" 22, 55.	Slotting Attachment	25 00
" —.	Spiral Attachment	
" 50.	Turret to go on Tail Stock	15 00
" 50.	Cut Off Attachment for Slide Rest	15 00
" 50.	Knurl for same with one wheel	10 00
" 46.	Split Chucks, hardened	2 50
" 47.	Steel Step Chucks, 2-in.	4 00
" 47.	Arbor Chucks, for Saws and Cutters	3 00
" 47.	Cast Iron Step Chucks, 3-in. diameter, 3 steps	3 00
" 47.	Cast Iron Step Chucks, 4-in. diameter, 4 steps	4 00
" 47.	Cast Iron Step Chucks, 5-in. diameter, 5 steps	5 00
" 47.	Cast Iron Step Chucks, 6-in. diameter, 6 steps	6 00

INDEX		
Page —.	Face Plates, special sizes	$3 00 to $6 00
" —.	" " with Milled T Slots, 8.in. diameter	8 00
" —.	Centers, Blank, 1-in.	1 00
" —.	" Large	1 50
" —.	" Female	1 50
" 51.	" Plain V	1 50
" 51.	" Revolvable V	3 00
" 53.	Chucking Rest	2 00
" 52.	Tipover T Rest	7 00
" 52.	Triangle Rest	2 00
" 52.	Follower Rest	6 00
" 51.	Drill Plate on Center, 1 inch	1 00
" 51.	" " " " 2 "	1 50
" 51.	" " " " 3 "	2 00
" 51.	" " " " 4 "	2 50
" 51.	" " " " 5 "	3 00
" —.	Table for Lathe	15 00
" 40.	Bicycle Foot Power	50 00
" —.	Plain Foot Power, 425 pounds	35 00
" 54.	Five Tools, each	50
" 44.	Inside Threading Tools, each	50
" 30.	Countershaft, 3 speeds	23 00
" 30.	Improved Leader and Aluminum Wheel to go on Countershaft	15 00
" —.	Extra Gears for Metric Threads	5 00

The above prices are net.

Price List of No. 4 Bench Lathes and Attachments.

INDEX		
Page 24 to 33.	No. 4 Bench Lathe, with T Rest, Face Plate and Closer for Step Chucks	$125 00
" 38.	Automatic Chuck Closer	25 00
" 42.	Compound Slide Rest	60 00
" 42.	Cutter Milling Attachment	75 00
" 28.	Screw and Taper Attachment	75 00
" 42.	Grinding and Lapping Attachment	25 00
" 32.	Turret Attachment	125 00
" 32, 56.	Cutting Off Slide for Screw Machine	50 00
" 22, 55.	Slotting Attachment	25 00
" 50.	Turret to go on Tail Stock	15 00
" 50.	Cutting Off Attachment for Slide Rest	15 00
" 50.	Knurl for same with one wheel	10 00
" 46.	Split Chucks, hardened and ground	2 50
" 47.	Steel Step Chucks, 2-in.	4 00
" 47.	Arbor Chucks, for Saws and Cutters	3 00
" 47.	Cast Iron Steel Chucks, 3-in diameter, 3 steps	3 00
" 47.	Cast Iron Step Chucks, 4-in. diameter, 4 steps	4 00
" 47.	Cast Iron Step Chucks, 5-in. diameter, 5 steps	5 00
" 47.	Cast Iron Step Chucks, 6-in. diameter, 6 steps	6 00
" —.	Face Plates, special sizes	$3 00 to 6 00

INDEX		
Page —.	Face Plate, with Milled T Slot, 8-in. diameter	$8 00
" —.	Center Blanks, 1-inch	1 00
" —.	" Large	1 50
" —.	" Female	1 50
" 51.	" Plain V	1 50
" 51.	" Revolvable V	3 00
" 53.	Steady Rest	10 00
" 53.	Chucking Rest	2 00
" 52.	Tipover T Rest	7 00
" 52.	Triangle Rest	2 00
" 51.	Drill Plate on Center, 1-inch	1 00
" 51.	" " " " 2 "	1 50
" 51.	" " " " 3 "	2 00
" 51.	" " " " 4 "	2 50
" 51.	" " " " 5 "	3 00
" —.	Table for Lathe	15 00
" 40.	Bicycle Foot Power	50 00
" —.	Plain Foot Power, 425 pounds	35 00
" 54.	Five Lathe Tools, each	50
" 44.	Inside Threading Tools, each	50
" 30.	Countershaft, 3 speeds	23 00
" 30.	Improved Leader and Aluminum Wheel to go on Countershaft	15 00
" —.	Extra Gears for Metric Threads	5 00

The above prices are net.

Price List for No. 3 Bench Lathes and Attachments.

Index			
Page 34.	No. 3 Bench Lathe, with ~~Steady Rest~~, T Rest, Face Plate and Closer for Step Chucks		$80 00
" 38.	Automatic Chuck Closer		25 00
" 42.	Compound Slide Rest		50 00
" 42.	Cutter Milling Attachment		60 00
" 28.	Screw and Taper Attachment		60 00
" 42.	Grinding and Lapping Attachment		25 00
" 50.	Turret to go on Tail Stock		15 00
" 50.	Cutting Off Attachment for Slide Rest		15 00
" 50.	Knurl for same with one wheel		10 00
" 46.	Split Chucks, hardened and ground		2 00
" 47.	Steel Step Chucks, 2-in.		4 00
" 47.	Arbor Chucks, for Saws and Cutters		3 00
" 47.	Cast Iron Step Chucks, 2-in. diameter, 2 steps		2 50
" 47.	Cast Iron Step Chucks, 3-in. diameter, 3 steps		3 00
" 47.	Cast Iron Step Chucks, 4-in. diameter, 4 steps		4 00
" 47.	Cast Iron Step Chucks, 5-in. diameter, 5 steps		5 00
" 47.	Cast Iron Step Chucks, 6-in. diameter, 6 steps		6 00
" —.	Face Plates, special sizes	$3 00 to	6 00

Index			
Page —.	Face Plates, with Milled T Slot, 7-in diameter		$7 00
" —.	Centers, Blank, 1 inch		1 00
" —.	" Large		1 50
" —.	" Female		1 50
" 51.	" Plain V		1 50
" 51.	" Revolvable V		3 00
" 53.	Steady Rest		8 00
" 53.	Chucking Rest		2 00
" 52.	Tipover T Rest		7 00
" 52.	Triangle Rest		2 00
" 51.	Drill Plate on center, 1-inch		1 00
" 51.	" " " " 2 "		1 50
" 51.	" " " " 3 "		2 00
" 51.	" " " " 4 "		2 50
" 51.	" " " " 5 "		3 00
" —.	Table for Lathe		12 00
" 40.	Bicycle Foot Power		50 00
" —.	Plain Foot Power, 425 pounds		35 00
" 54.	Five Lathe Tools, each		50
" 44.	Inside Threading Tools, each		50
" 30.	Countershaft, 3 speeds		23 00
" 30.	Improved Leader and Aluminum Wheel to go on Countershaft		15 00
" —.	Extra Gears for Metric Threads		5 00

The above prices are net.

Price List for Rivett Staking Tools.

Page 94.

Staking Tool, 100 punches, 20 stumps, stand and shade	$22 50
Staking Tool, 54 punches, 13 stumps, stand and shade for 100 punches	15 00
Staking Tool, 54 punches, 13 stumps, stand and shade for 54 punches	15 00
Punches, No. 1 to 3, each	30
" " 4 to 14, "	25
" " 15 to 17, "	30
" " 18 to 41, "	20
" " 42 to 66, "	19
" " 67 to 76, "	22
Punches, No. 77 to 87, each	$ 15
" " 88 to 100, "	17
Stumps, A, each	25
" B to G, each	17
" H to L, "	25
" M, "	30
" N to P, "	25
" Q to T, "	20
Punch Extractors, each	25
Dies, each	2 25
Wooden Stands, each	1 00
Glass Shades, each	75

N. B.—When ordering the 54-Punch Staking Tool be sure to state whether you want the stand to hold 54 or 100 Punches.

Price List of Combinations of Rivett Lathe, No. 2.

Pages, 65 to 69.

SIZE OF LATHES:

Length of Bed, 11 1-2 inches. **Bed to Center, 2 3-16 inches.** **Swing, 4 3-8 inches.**

	Rivett Steel Bed, New Style.
LATHE, Plain — which includes Taper Chuck and its Steel Center, Tailstock Spindle and its Steel Center, Screw Chuck, 6¼ inch Cement Chucks, 9 feet of Round Belting. Price	$40 00
LATHE, Plain — Less Tailstock; same as above. Price	32 00
LATHE, as first described above, and 10 Chucks. Chucks any size, Wire or Wheel. Price	50 00
LATHE, as first described above, and 15 Chucks. Chucks any size, Wire or Wheel. Price	55 00
LATHE, as first described above, and 16 wire and 2 Wheel Chucks, 1 Chuck Box with Cover, and Jewel Chuck. Chucks any size. Price	59 50
LATHE, as first described above, and 23 Wire and 5 Wheel Chucks, 1 Chuck Box with cover. Chucks any size. Price	69 00
LATHE, as first described above, and 33 Wire and 5 Wheel Chucks, 1 Chuck Box with Cover. Chucks any size. Price	78 00
LATHE, as first described above, and 80 Wire and 5 Wheel Chucks, 1 Arbor Chuck, 4½ inch Saws, 1 each 1½ Emery, Copper and Ivory Laps, 1 Chuck Box with Cover. Price	125 00

While we have listed a cast iron bed lathe for several years, our sales of them have not amounted to 2 per cent., we have therefore decided to make nothing but the steel beds for Rivett Lathes.

Cast iron beds will be furnished with old style Rivett and Special Lathes, only in quantities to the dealers.

NOTE.— In ordering Tools please use the same terms that are used in this Price List.

Price List of Attachments for Rivett Lathe No. 2.

Index			
Page 82.	Arbor Squaring Fixture or Filing Rest, patented		$8 00
" —.	Belting, per foot, Round .06, Flat		08
" 86.	Centre Punch		15
" 86.	Centers, Steel, Male, 3 sizes, each		25
" 86.	" " Female, 3 " "		25
" 92.	Countershaft, patented		8 00
" 92.	" " Overhead Attachment		6 00
" 92.	Countershaft, Plain Single Stand		5 00
" 86.	Chucks, Wire, Best Steel, hardened and ground		1 00
" —.	Chucks, Screw		1 25
" —.	" Taper		1 25
" 86.	" for Pivot Drills, Taper Shank to fit Tailstock or Handle		1 25
" 86.	" Wheel		1 00
" —.	" Arbors for Saws, Laps, etc.		2 50
" 86.	" Jewel Center		4 00
" 86.	" for Jeweling Soft Steel, same as used in Watch Factories, stepped for Jeweling		50
" —.	" for Cement Pivoting—Watch Factory Style		3 00
" 84.	" with Guide for Rounding-up Tool		4 00
" 86.	" Face Plate		3 00
" —.	" Mounting Beach		2 50

Index			
Page 86.	Chucks, Brass Cement, per doz. ¼ in.		$0 50
" 86.	" " " " " ½ in.		1 50
" 86.	" " " " " ¾ in.		2 50
" 86.	" " " " " 1 in.		3 50
" 87.	" Box, with Cover		1 00
" —.	Dogs for Jeweling Rest Spindles		2 00
" 86.	" " Face Plate Chucks, small		75
" —.	" " " " " large		1 00
" 72.	Index Plates, according to spaces	$1 00 to	3 00
" 76.	Jeweling Rest, with Calipers		30 00
" 76.	" " " " and Cross Feed Screw		35 00
" 76.	" " extra Spindles, each		2 50
" 76.	" " Cutters, each		15
" 80.	" Head or Pivoting Head with Improved Bearing		18 00
" —.	Laps, Emery, 1½ inches		50
" —.	" Boxwood, 1½ "		50
" —.	" Ivory, 1½ "		1 25
" —.	" Copper, 1½ "		1 25
" —.	" Tin, 1½ "		1 50
" —.	" Steel or Copper, charged with diamond powder on both sides, 1½ inches		3 00
" 76.	Pivot Polisher		15 00
" 76.	" " Laps		40
" 96.	Rivett Foot wheel		10 00
" 84.	Rounding-up Tool, patented		25 00

Rubber handle for tailstock 50¢

Price List of Attachments for Rivett Lathe No. 2. Continued.

INDEX		
Page 72.	Slide Rest, patented, 3 tools, cutting edge on each end	$35 00
" 72.	Slide Rest, Tools, with cutting edge on on each end	25
" 74.	Slide Rest, "Rivett Special"	20 00
" —.	Saws, each ½ in.–.15. ¾ in.–.20. 1 in.	25
" —.	Screw Plates for Brass Cement Chucks	1 50
" —.	Taps " " " "	75
" —.	Tapers, Steel or Brass, 3-16 in., per doz.	1 50
" —.	" " " ¼ " "	1 75
" —.	" " " ⅜ " "	2 50
" 68.	Tailstock, Plain	8 00
" 80.	" with Screw	15 00
" 80.	" Half Open, with Spindle	13 00
" 80.	" with Traverse	12 00
" 82.	Tip-over T-Rest	3 00
" 76.	Traverse Spindle Grinders	30 00
" —.	" Grinder to go on Slide Rest	20 00
" 78.	Universal Head, Hardened Steel Spindle Bushing hardened and ground, Patent Jaws, Solid Nickel Plate	35 00
" 78.	Universal Head, Hardened Steel Spindle Bushing hardened and ground, Patent Jaws, Aluminum Bronze Plate	34 00
" 78.	Universal Head, Hardened Steel Spindle Bushing hardened and ground, Patent Jaws, Cast Iron Plate	33 00

INDEX		
Page 78.	Universal Head, Hardened Steel Spindle Bushing hardened and ground, Cast Iron Plate, Plain Jaws	$30 00
" 78.	Universal Plate to fit Head, mounted on hard steel chuck, shank hardened and ground, Patent Jaws, Solid Nickle Plate	16 00
" 78.	Universal Plate to fit Head, mounted on hard steel chuck, shank hardened and ground, Patent Jaws, Aluminum Bronze Plate	15 00
" 78.	Universal Plate to fit Head, mounted on hard steel chuck, shank hardened and ground, Patent Jaws, Cast Iron Plate	14 00
" 78.	Universal Plate to fit Head, mounted on hard steel chuck, shank hardened and ground, Cast Iron Plate, Plain Jaws	10 00
" 70, 72.	Wheel Cutting Attachment, Plain Revolvable Tailstock, 12 Index Plates	30 00
" 70, 72.	Wheel Cutting Attachment, Revolvable Tailstock, with Slide, 12 Index Plates	40 00
" 74.	Wheel Cutting Attachment, "Rivett Special," 12 Index Plates	25 00
" —.	Wire, Stubs, for Slide Rest Tools, cut to length, 25 pieces in a bunch	50
" 89.	Wire Gauge, (Stub) Nos. 1 to 80.	

References.

A few of our Bench Lathe customers. Our Watchmakers' Lathes are too widely known and too universally used to need particular mention.

Smithsonian Institute	Washington, D. C.
Catholic University of America	Washington, D. C.
Chas. B. Tuch, (U.S. Weather Bureau.)	Washington, D. C.
U. S Light House Establishment	Boston, Mass.
United States Mint	New Orleans, La.
United States Arsenal	Watertown, Mass.
University of Chicago, Ryerson Phys. Lab.	Chicago, Ill.
University of Chicago, Yerkes Observatory	Chicago, Ill.
Armour Institute	Chicago, Ill.
Lewis Institute	Chicago, Ill.
Michigan College of Mines	Houghton, Mich.
University of Virginia, Rouss Phys. Lab.,	Charlottesville, Va.
Drexel Institute	Philadelphia, Pa.
Brazilian Government	Brazil, South America
Canadian Horological Institute	Toronto, Ont.
City of Boston, Fire Department	Boston, Mass.
Munn & Co., Scientific American	New York, N. Y.
Prof. W. A. Rogers	Waterville, Me.
Schuchardt & Schutte	Berlin, Germany
C. W. Burton, Griffiths & Co.	London, England
Churchill & Co	London, England
Mansfield Cumming	Lyndhurst, England
Brown & Sharpe Manufacturing Co	Providence, R. I.
Pope Manufacturing Co.	Hartford, Conn.
Hartford Cycle Co	Hartford, Conn.
Hartford Rubber Works	Hartford, Conn.
Wyckof, Seamans & Benedict	Ilion, N. Y.
American Bell Telephone Co.	Boston, Mass.
Cons. & McKay Lasting Machine Co.	Beverly, Mass.
Prentiss Tool & Supply Co.	New York, N. Y.
American Steam Gauge Co.	Boston, Mass.
Crosby Steam Gauge Co.	Boston, Mass.
American Optical Co	Southbridge, Mass.
Scoville Manufacturing Co.	Waterbury, Conn.
Blake & Johnson	Waterbury, Conn.
Garvin Machine Co.	New York, N. Y.
Cycle Improvement Co	Westboro, Mass.
Humber & Co., America Ltd	Westboro, Mass.
Eastman Kodak Co.	Rochester, N. Y.
Rochester Cash Register Co.	Rochester, N. Y.

Gundlach Optical Co.	Rochester, N. Y.
Boston Electric Light Co.	Boston, Mass.
Gamewell Fire Alarm Co.	Newtonville, Mass.
Mechanical Specialties Manufacturing Co.	Boston, Mass.
Mellin, Bray & Co	Boston, Mass.
Beacon Vacuum Pump Co.	Boston, Mass.
Electric Heat Alarm Co.	Boston, Mass.
Photo. Materials Co.	Rochester, N. Y.
Blancard & Co.	New York, N. Y.
Wilmington Dental Manufacturing Co.	Wilmington, Del.
Dupaul, Young Optical Co.	Southbridge, Mass.
G. M. Williams Co.	New London, Conn.
Schultz Manufacturing Co.	Philadelphia, Pa.
J. Muhr & Bro.	Philadelphia, Pa.
New Gaynor Electric Co.	Louisville, Ky.
Carter Manufacturing Co.	Louisville, Ky.
Wadsworth Watch Case Co.	Newport, Ky.
Jonas Dorst & Co.	Cincinnati, Ohio
Canning Electro-Plating and Mfg. Co.	St. Louis, Mo.
Geneva Optical Co.	Geneva, N. Y.
Wilcox Silver Plate Co.	Meriden, Conn
Engineering Appliance Co.	Jamestown, N. Y.
Accurate Cash Register Co	Lancaster, Pa.
Link, Angell & Weis	Newark, N. J.
Peerless Manufacturing Co.	Barton, Vt
Nelden-Judson Drug Co.	Salt Lake City, Utah
Mayo Knitting Machine and Needle Co	Franklin, N. H.
Herman Dock M. E.	Philadelphia, Pa.
T. B. Kinraide	Jamaica Plain, Mass.
Wm. Ainsworth	Denver, Col.
C. H. Hanson	Boston, Mass.
F. H. Baum	Chicago, Ill.
Frank Moorfield	Newark, N. J.
F. H. Tichenor	Peoria, Ill.

CHRISTOPHER
COLVMBVS

WORLD'S COLUMBIAN EXPOSITION
IN COMMEMORATION OF THE
FOUR HUNDREDTH ANNIVERSARY
OF THE LANDING OF COLUMBUS
MDCCCXCII . MDCCCXCIII
TO